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OCTOBER 2000 NO. 50

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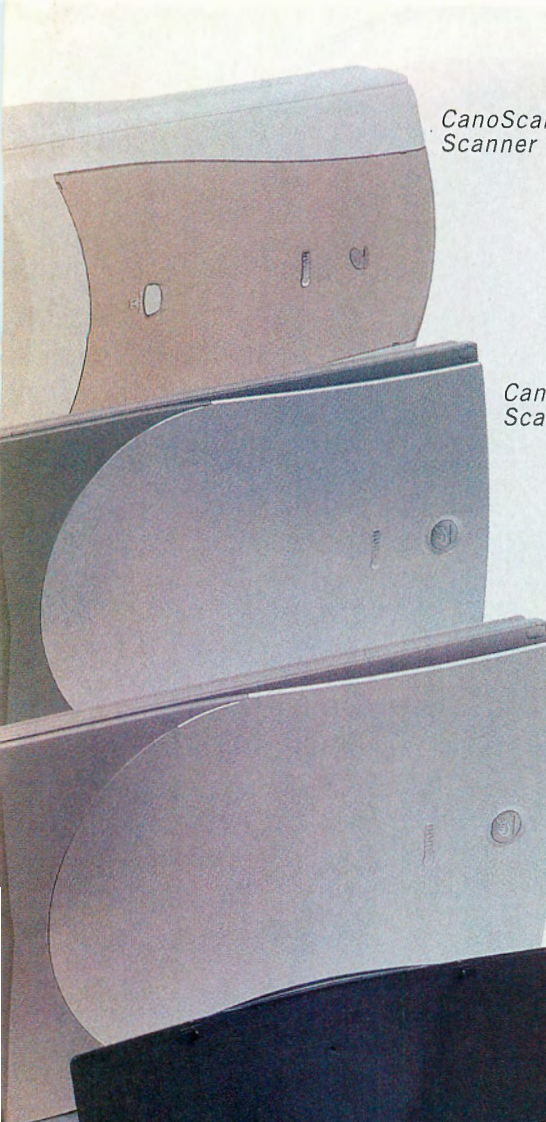
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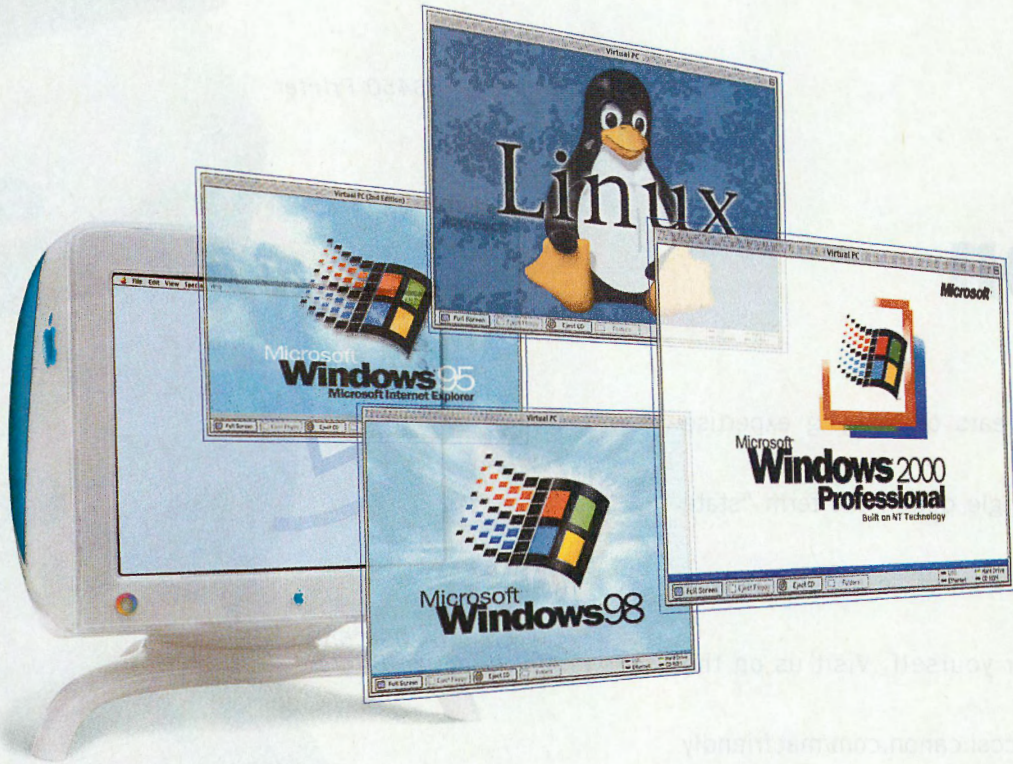
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highlights

28 Resistance is Futile

Get an eyeful of Apple's latest hardware—including the 8-inch, give-that-thing-to-me-now Cube; a far less fruity iMac line; and the new, wrist-friendly optical mouse. We've got more specs, pics, and charts than you can shake a stick at.

by The MacAddict Staff



NOT SINCE PICASSO have we seen such a fine example of Cubism!

36 Picture Perfect

Say good-bye to one-hour photo shops—now perfect prints are just a few mouse clicks away. We'll tell you how to color-correct, sharpen, and all-around beautify your digital images for flawless final results.

by David Reynolds

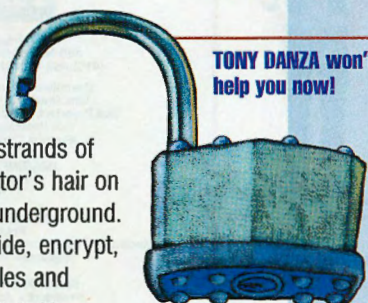


"...NO, IT'S just a bug bite."

42 Boss-Proof Your Mac

If you've been smelling your boss's cologne in your cubicle or finding strands of your system administrator's hair on your Mac, it's time go underground. Learn how to secure, hide, encrypt, and protect your Mac files and email from evil, skulking eyes.

by Todd Stauffer



TONY DANZA won't help you now!

how to

70 Play Override with Overdrive

We mix a cool new controller with an old-time favorite game and—after the inadvertent addition of Chemical X (well, actually an intentional use of USB Overdrive)—we're all set to blast some renegades.

by Ian Sammis



OH JOY! It's a stick!

74 Stitch Scans with Photoshop

Trying to scan record albums, book covers, and farm animals often produces results that look like a patchwork quilt—each section tends to have its own (unfortunately) unique look. Here's how to put the pieces back together.

by Joseph O. Holmes



AM I SEEING double or am I drunk?

JUST LIKE THE COVER CUBE, Aaron Lauer is a square, but he's cool. He took the cover photo.



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every month

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Rob gets secrets piped into him from the CIA through a transmitter located within a gold filling in one of his upper molars. See what he has learned this month.

14 Letters

You said it, we printed it. Let's just say we're both to blame.

16 Get Info

Microsoft is chipping away at the new Mac Office suite, and has got it pretty nicely polished. Also on offer: our usual rounds of neat shareware, droolworthy hardware, and Mac-incompatible gizmos we managed to get working anyway.

26 Scrapbook

Without even the benefit of formaldehyde, we eviscerate an iBook to see how all those tiny parts fit together. Thank goodness for macro lenses!

JUST ONE MORE, and Deus Ex will run like a charm.

48 Reviews

The game fest is under way with Diablo II, The Sims, and Deus Ex. We scrutinize Canon's itsy-bitsy CanoScan N656U and Umax's 42-bit consumer scanner, the Astra 3400. Create Web banners with Beatware's e-Picture Pro, and discover IXL's low-cost Photo Easy DualCam, Extensis's Suitcase 9, and more.

68 Powerplay

Former Bungie VP Peter Tamte spills the beans on Microsoft, Mac gaming, the G4 cube, and how his new company will bring Microsoft's coolest games—including Bungie's Halo—to the Mac. Plus you'll get some scary insight into Ian's Sim life, and a preview of the other RPG, Baldur's Gate.

SWM WHO PREFERS apple rainbow logo seeks "Mac daddy" as simulated long time companion...

80 Ask Us

Indexing oddities, spelling check challenges, and extension tension—we've got your answers right here, buddy.

112 Shut Down

Bad jokes and stuff we just plain made up—and you thought we were getting respectable.



MacAddict

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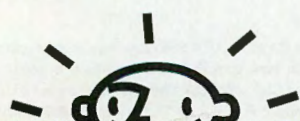
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Eep! I'm not dressed yet!
Back in the New York groove, except
for those of us in the Romania
and Alaska grooves.



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DITCH THE 3D GUNS, 'cuz this is the game that will stand the test of time.

october's high-calorie picks

Mia 2: Romaine's New Hat Demo

Aw. Isn't she cute? It's a story and an interactive, educational adventure rolled into a beautifully rendered 2-CD set. Call it edutainment at its best. Little Mia lost her mom's gorgeous hat and it's up to you to help her find it or earn Sparklies so she can buy a new one! This game is made for children ages 5 to 11, but grownups will find Mia 2 fun, charming, and educational, too!

Crystal Caliburn Demo

3D Shooter? No way! Interactive adventure? Shyah, right! We're going old school, baby! You gotta love the classics. Crystal Caliburn is a best-selling pinball title, designed and developed in Japan. It received high praise from the *New York Times*, and has won many prizes and awards all over the world, including the Best Simulation award from the Software Publishers' Association. The game features ultra-realistic ball movement, superb sound effects and beautiful graphics. Its three-level playfield, super-real 3D ramps, and three-ball multiball level will bring real arcade excitement to your computer!

Borderline Solitaire

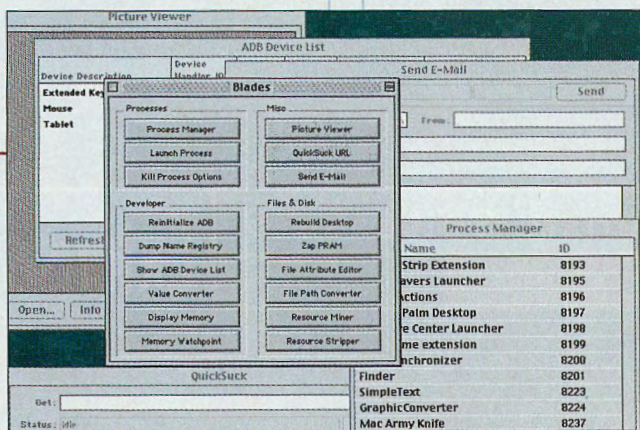
Speaking of old school, who can pass up the hip new version of Solitaire? Relive those days of office anti-productivity with this snazzy new time waster by Borderline. The decks come in a variety of designs, including variations of Aqua and the classic look. You can likewise customize the background and change the difficulty level to suit your mad solitaire skillz.

Mac Army Knife (MAK) 2.0

This knife doesn't slice or dice, but this app from Chaotic software sure can be a handy little utility. Need to zap the PRAM? Grab MAK! Need file attributes? A stopwatch? An egg timer? Need to Record audio? Or send email? The MAK does these things and a whole lot more. Now how much would you pay? This is your everything-app.



NOW YOU CAN TELL your PC friends that your Mac can do almost anything.



MMM...TARANTULA. Could a Macworld Expo highlight ever be as tasteful as the Ambrosia Software bug-eating event? Find out!



Building Websites Isn't Child's Play

Okay, so your 6-year-old niece has a webcam set up to document the life and times of Goldie the Goldfish and his arch-nemesis Fluffy the Housecat. You've still got a few more programming tricks up your sleeve than she does. (Not to mention a degree...)

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editor's note

How Bungie, the Xbox, and the G4 Cube Control Your Future.

Last month in my editorial, I rambled through a slightly overstated eulogy to Bungie Software—makers of the hit Macintosh games *Marathon* and *Myth*. At that time, Microsoft had just acquired Bungie, and I predicted that the gaming company was probably going to leave the Mac for greener pastures. The course of events sorely dated my editorial by the time it reached your hands. At Macworld Expo New York in July, Steve Jobs made the announcement that Bungie's new game *Halo* would in fact be coming to the Mac. You cheered. I slapped my forehead and screamed, "D'oh!"

The future arrival of *Halo* on the Mac is, of course, good news. The announcement got me thinking about the Xbox, however, and while I was sitting there pondering Microsoft's upcoming gaming console, Steve Jobs pulled back the cover on the new Power Mac G4 Cube. I immediately saw a parallel between the two devices.

Boxes and Cubes

What these two, seemingly unrelated platforms have in common is this: They both take small steps toward entirely new roles for computers. Former Bungie vice president Peter Tamte eloquently summed up this sentiment in a recent interview I did with him (see "Bounce Back," p68). He pointed out that Apple is one of the few companies to realize that the average person encounters some real, physical obstacles in using a computer. Tamte offered Palm's PDAs as an example of a platform that has thrived simply because it got the ergonomic aspect of usage right. Both the Xbox and the Cube likewise address physical hurdles that stand in the way of computing ease.

...the average person encounters some real, physical obstacles in using a computer.

Microsoft, like Sony, is trying to transition the computer out of the office and into the living room. With the Xbox, Microsoft is making a device which users will lean back and enjoy rather than sit forward and work at. The Xbox is a gaming console, just like those Nintendo, Sony, and Sega make—but at heart it's also a computer. It can surf the Internet and play DVDs. In the future, Microsoft's living-room toy



ROB REALLY NEEDS a new ed note picture.

could theoretically send and receive email, or download MP3s to play via your home stereo.

Apple's Answer

Apple, on the other hand, is approaching the physical limitations of computing from the opposite direction. It is making machines with so much personality, so much physical appeal, that you will feel comfortable putting them into situations where you would never have imagined a Mac before. A computer that oozes wires and takes up tons of space always reminds you of work, so you instinctively keep it tucked away in your office. But what if Apple made a machine so small, uncluttered, and appealing to the eye that you wanted to keep it on your kitchen counter so you could check online recipes while making dinner? The Cube is still too expensive for such purposes, and other limitations prohibit using it next to your microwave—but the compact box represents a significant step toward expansion of use.

As you look over Apple's newest hardware offerings (see "Resistance is Futile," p28), you may feel the temptation to complain about missing PCI slots, absent audio ports, and other shortcomings—but don't lose sight of the Cube's real value. Clock speed and cache systems will always play a part in the Mac, but as we integrate computers into more and more areas of our lives, we're going to face bigger, not strictly technological issues. When you look at the Cube, think about Palm PDAs and the Xbox—and realize that Apple has already taken our beloved Mac one step further.

Staff Rants

Jenifer Morgan

Managing Editor

Q. What shape would you like your next computer to be?

A. A ruby-red, life-size MIG-17, only with radar. I'd simulate

flight from application to application, crashing my system only when I messed up a landing.

Q. In the future, where don't you want computers?

A. Computers, like telephones, should never be next to a toilet.



Ian Sammis

Associate Editor

Q. What shape would you like your next computer to be?

A. Well, a sphere would be a bad idea,

unless I cut a circular hole in my desk in which it could sit...so probably another Platonic solid. I think I'd go for a regular icosahedron, so I could paint numbers on it when it became obsolete and use it as a d20.

Q. In the future, where don't you want computers?

A. In my underwear, in my food, and on my belt, in that order.



Andrew Tokuda

Digital Media Editor

Q. What shape would you like your next computer to be?

A. Small, flat, and the size of a credit card (I like compactness)—hooked up to a 22-inch Cinema display.

Q. In the future, where don't you want computers?

A. For decency's sake, I'll refrain from answering that question.





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letters

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AND TO THINK WE GAVE IT A SPIFFY

I read your review of Who Wants to Be a Millionaire (Aug/00, p73). You said it wasn't too shabby, and I tried it in the store, so I bought it. One of the questions in the game interested me. It asked what name the creators of the Macintosh XL originally planned to use. The answer is Lisa 2. However, if you ask the audience, they choose the wrong answer! For the one Macintosh question in the entire game, the poll is wrong. I was disappointed.

—NICK BURGAN-ILLIG

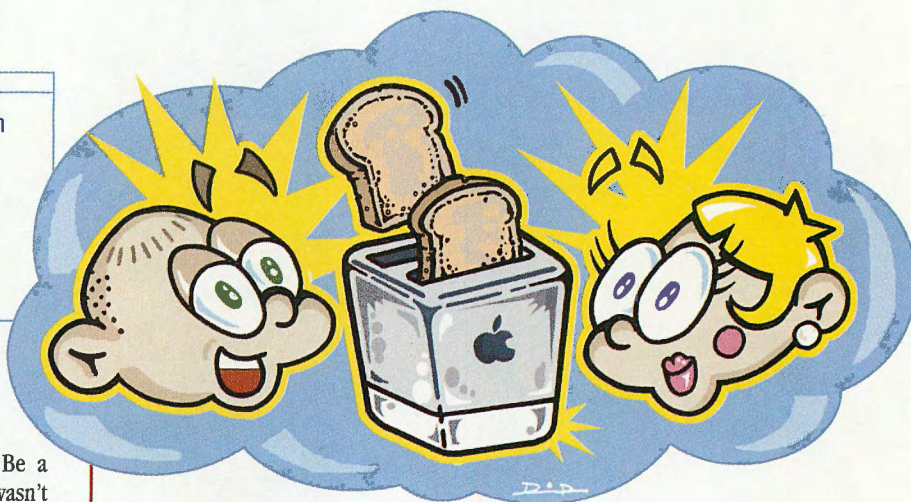
Recently Sighted

My husband is such a Mac addict that he cannot bear to throw away any Mac, even if it is not functioning in the traditional sense.

—EDEN KRUGER-WARN



WE THINK YOU'RE missing the concept of getting mail on your Mac.



THE COMPETITION is toast.

ARE YOU RELATED TO IAN SAMMIS?

It concerns me that the image on the front of the OS X box is a set of gears meshed to form the letter S. In real life, if the first gear were to turn clockwise, any other gear would have to turn against the adjacent gear, causing a grinding of teeth on a biblical scale! The startup screen for ClarisWorks 4 shows a similar nonworkable gear train. C'mon, whoever turns out this artwork, think! The Mac community knows that the Mac works. Why not show the same consideration for how you present it to the public? I feel better now.

—DAVE HANSON

YOU MIGHT NOT BE OK JUST YET

I just want to thank you all at MacAddict for saving my almost lost soul. Thank you for showing me the light—and I am dead serious when I say this, too. Oh, and uh...does Max need a friend? And where does Max live? And is Max real or is he just a cartoon?

—AMIR MIKHAK

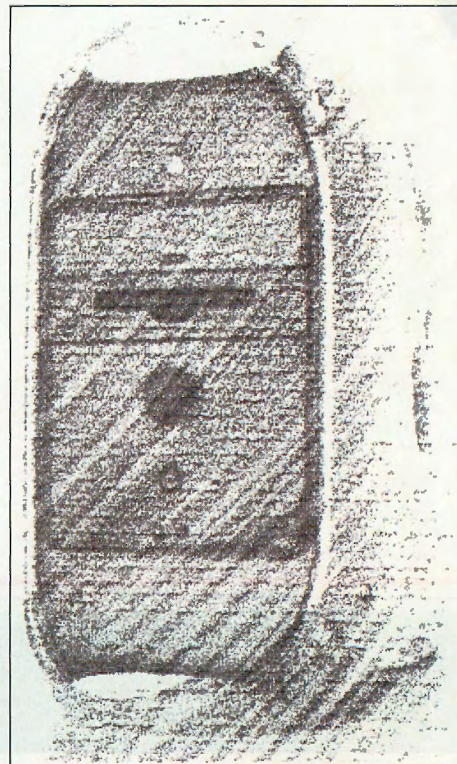
BUT WE LIKE BAGELS!

Has anyone else noticed the eerie visual similarity between the G4 Cube and a toaster? Could it be mere coincidence? A new 'ad campaign ("The power to toast the competition," "The greatest thing since sliced bread")? Or simply a side effect of using fanless convection cooling with a processor that churns out a gigaflop per second?

—MATT JOHNSON

PRETTY SKETCHY

Thank you very much for your tutorial on how to use the color-dodge feature of Adobe Photoshop to create images resembling pencil sketches ("Sketch with Photoshop," Feb/00, p74). I took a picture of my G4, scanned it in along with pencil strokes, and then sketched it in Photoshop.—CODY MILLER



HOW WALL Street Journal.

ILLUSTRATION BY DAVID "A" ROSS

THAT'S USING THE OL' NOGGIN

Sheesh, some people are already griping about the Next...er...Apple G4 Cube. They say it's too expensive and not expandable enough, and they question the wisdom of putting out a product with no definable target market. Whine, whine, whine.

One can hardly accuse Apple's G4 Cube of lacking versatility. In fact, here are some other purposes it can serve that I bet even Apple didn't think of:

- Tissue box.
- Soap dish.
- Wheel chock.
- Book ends (requires two).
- Egg slicer (use the grate on top).
- Impress your PC friends by showing them how convenient it is to have to flip over your computer to plug any device into it.
- Just add a bulb and a shade, and you have a new lamp.
- Cat food dish (turn it upside down).
- Doorstop.
- Rubik's cube for clueless people.
- Flower vase.
- Replacement for the Cable Ace award.
- Shoeshine stand for people with small feet.
- Penholder for those pens with the really huge feathers on them.
- Window prop for a hot summer day.
- Buy a bunch and stack 'em up like giant overpriced Legos.

That should help Apple sell 'em!

—NATHAN STRUM

YOU'RE A LOON

I noticed that if you look cross-eyed at Mac Dance Web site (<http://www.themacmind.com/macdance>), as if looking at a magic-eye picture, one iMac in the seventh row appears to pop forward and an iBook appears to fall backward. If you cross your eyes in the opposite direction, this motion reverses. I was wondering if anyone else had noticed this or if I'm just crazy.—ERIC STEINLAUF

BEEHAAAVE!

I was a PC pusher for years, doing meaningless tasks on a meaningless machine, but I have seen the light. My boyfriend introduced me to my first Macintosh. At first I was shy, an Apple virgin—I really didn't know how to get my Mac to its full potential. I saw a copy of *MacAddict* at my boyfriend's shop, and I secretly stole it and subscribed. Your magazine taught me how to handle my G4 and to get the best out of it, and now, I'm proud to say, I'm a Mac hussy!—LYNN ESTRADA

WHY, THANKS!

I have read every issue of *MacAddict* from cover to cover since the first one. I must say that the August issue was the most interesting yet. Outstanding job, *MacAddict*—keep up the great work!—RANDY MAYNARD

The August issue of *MacAddict* really rocked—it alone was worth the price of my next renewal! I especially valued the "Mac OS X Geek-English Dictionary" (p28); thanks for a boatload of useful information.—JERRY MARTIN

Wow, I just got the August issue, and I'm totally blown away. Between the OS X dictionary and "Secrets of the Pros," this is easily the best, most informative issue to come from you guys in a very long time.—JUSTIN SEVAKIS

THINK OF THEM AS INSANELY.245 FAST

Steve Jobs said the new multiprocessor Power Mac G4s are "wicked fast," and I was hoping you guys could clear up just how fast that means. In terms of "insanely fast," just how fast are these new wicked-fast machines?—JIM RODOVICH

You Know You're a Mac Addict When...

...you check under your seat after the Macworld Expo keynote for a free optical mouse ticket—and you're watching the live Webcast at home.—SHAY FULTON



SO THAT'S what they mean by "swims with the fishes."

...you build a MacQuarium just so you can get in the magazine.—MIKE AND KATHY DURKEE

...you think the *X-Men* movie is about the Mac OS developers.—KEVIN SAWICKI

...you finally break down and set your home page to the PowerBook listings on eBay.—DANIEL TOMASCH

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A droolworthy product with a section wrapped around it.

Office 2001: A Mac Odyssey

Microsoft Shows Off New Mac Suite

As part of its continuing community service work to make up for unleashing Word 6 on an unsuspecting Mac community, Microsoft has once again retooled its Macintosh version of Office and is almost ready to launch Office 2001 for the Mac (no, that's not a typo—they're shipping Office 2001 in 2000). The new Office contains updated and revamped versions of the standard Office fare—Word, Excel, and PowerPoint—as well as a whole new application: Entourage.

Think of the new Entourage application as a hybrid of Outlook Express and the old Claris Organizer—not only does it handle email and newsgroups, it also includes a complete address book, calendar, and task list. Benefiting Palm users, Entourage will synchronize with your Palm-based handhelds for easy upkeep of contact and calendar information. Office 2001 integrates Entourage throughout the suite, allowing you to perform tasks such as auto filling Entourage contacts into your Word documents.

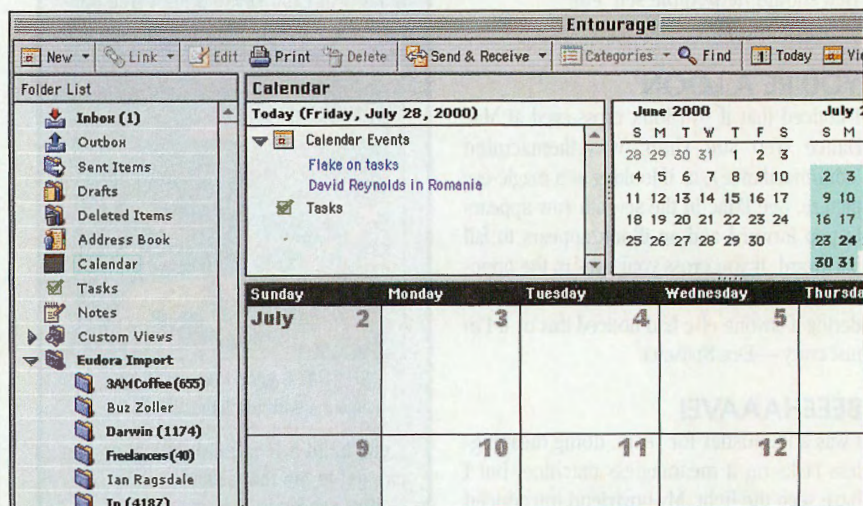
As for the more traditional Office applications, Microsoft has added a slew of new features, improved integration, and best of all, made the apps more Mac-like. All new tidings in Office 2001 include an improved Formatting Palette (the floating window that contains most of the formatting commands); restructured template and clip-art galleries with hundreds of new choices; and a smaller, less annoying bipedal Mac in the Help window. The increased Macishness of Office 2001 comes from a number of minor but cumulatively significant improvements—the toolbars are smaller and less overwhelming, the status bar no longer blocks tabbed windows in the Finder, and there is improved QuickTime and Drag and Drop support. In addition,

because 2001 uses the Appearance Manager for its windows instead of rolling its own, Office finally works properly with extensions such as Kaleidoscope.

Not all of the changes in Office lie in the software itself, however. Microsoft has redesigned the product's packaging, putting the CD in a hard-shell, round, plastic case that you can use to hold other CDs. Like the iMac that inspired it, the case is a little funky, but it's pretty cool once you get used to it. The product has also received a whole new logo: Instead of the somewhat long-winded "Microsoft Office 2001 Macintosh Edition," Microsoft has a more concise "Office:mac" logo. The name isn't just simpler—it actually fits on the tiny new box.—DR



TENTACLES sold separately.



THE NEW BOX
DOUBLES as a CD case. We hope you didn't want any manuals, though!

OFFICE:MAC

EXPECTED RELEASE: October

PRICING: Microsoft will announce full and upgrade pricing at the product's introduction, but if you buy Microsoft Office 98 between July 19 and October 19, 2000, you can get a free upgrade to Office 2001 (you'll have to pay the \$7.50 shipping charge, though).

ALTHOUGH IT RESEMBLES Outlook Express, Entourage is so much more. It handles contacts, tasks, and calendar items, plus it synchronizes with your Palm. Who says Microsoft can't write great software?

This Just In: Fruit Still in Season

Murphy might as well add this amendment to his infamous law: Just when you've finished spending your money to accessorize in existing iMac colors, Apple will introduce better ones. A very unscientific poll revealed that some manufacturers will add the new sage, ruby, indigo and snow hues to existing product lineups. Others won't. But no matter—this past summer's Macworld Expo proved that the original five fruit flavors are still going strong. Here are a few examples.—NR

DC 240 iZoom

Kodak
800-508-1531,
<http://www.kodak.com>
\$549.00



e.light

Artemide
631-694-9292,
<http://www.elight-usa.com>
\$129.00



iCradle

MacMate
877-734-3778,
<http://www.macmateproducts.com>
\$24.99



PortStation

Xircom
805-376-9300,
<http://www.xircom.com>
\$79.00 and up



iClock

Contour Design
603-893-4556,
<http://www.contourdesign.com>
\$19.95



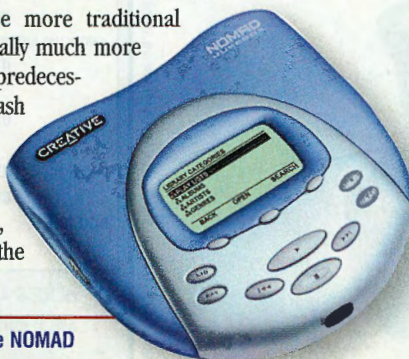
More Music

Two new MP3 players offer heaps o' storage

With or without Napster, the MP3 craze isn't likely to die anytime soon. After a long year of legally encoding songs from your CD collection (yeah, that's it), those tiny little Compact Flash or SmartMedia cards in your portable MP3 players become more confining than a compact car on a group date. Fortunately, the usual players in the MP3 business are working out devices that can assuage (for a time) your storage craving.

Creative Labs (<http://www.creative.com>), fresh from its "Mac users have money, too!" revelation last year, is planning to ship a new version of its NOMAD MP3 player, the NOMAD Jukebox, late this summer. This \$499 device uses an internal 6GB hard drive to store a whopping 20 hours of music. I-JAM Multimedia (<http://www.ijamworld.com>) has taken a different approach—if you've got a CD-R drive, you can burn a data CD full of MP3 files, place it in the \$129 IJ-828 Compact Disc player, and listen to around 10 hours of music.

Both of these new devices have their downsides. Because the new devices use more traditional storage formats, they're potentially much more susceptible to jarring than their predecessors. Moreover, a hard drive crash in the Jukebox could wipe out a lot of music. Still, if the repetition of the same MP3 tracks is beginning to get on your nerves, one of these devices might be the way to go.—IS



A 6GB HARD DRIVE LETS the NOMAD jukebox live up to its name.

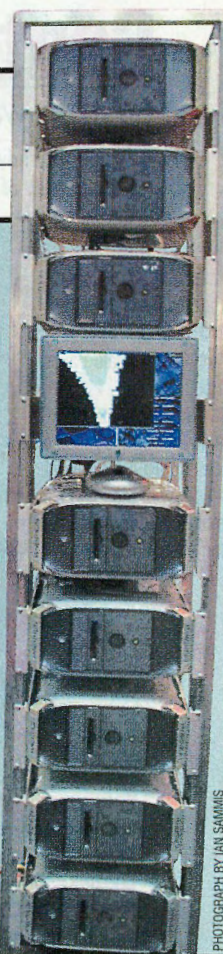
Adding Nodes

Two G4s not enough? Try 16!

While dual processors may sound impressive, particularly when the processors have vector units like the Velocity Engine, they're hardly enough to replace a modern supercomputer. Fortunately, if your need for speed is great, Terra Soft Solutions (<http://www.terrasoftsolutions.com>) sells a specialized version of Linux (Black Lab Linux) that lets you connect as many G4 machines as you want into a single cluster.

Kai Staats, CEO of Terra Soft Solutions, touted the flexibility, relatively low cost, and high performance of G4 clusters—you get good results for a fraction of the cost of a traditional supercomputer. Moreover, as Staats puts it, "When a supercomputer becomes outdated, what do you do with it? Give it to your kid to stick in his basement? With a G4 cluster, you just take it apart and give everyone in the lab a new G4." At the moment, the largest known G4 cluster—16 nodes—is housed at the Scalable Computing Lab at Ames National Laboratory in Iowa.—IS

WITH SIX 500MHz G4s and two at 450MHz, this is a fast, fast machine.



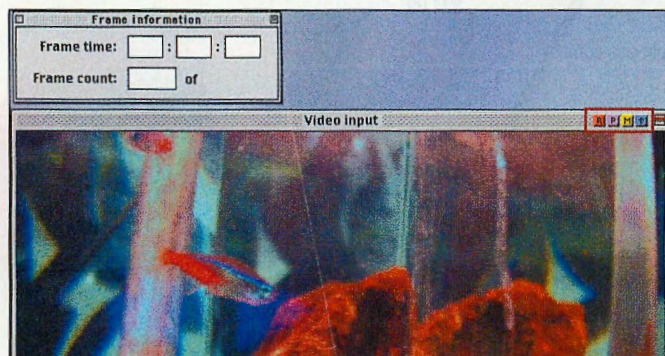
Shareware Pick of the Month

BTV Edit

Price: \$25 url: <http://www.btv.org.uk>

Ben Bird has come up with a useful shareware utility for digital video aficionados: BTV Edit, a \$25 widget that lets you view and capture video from any Mac-compatible video source, as well as edit, play back, compress, and export video. BTV Edit also has a nifty feature called *frame averaging* that can clean up still video shots by averaging out noise

over several frames—quite handy for low-light situations. Plus, BTV Edit offers AppleScript support and even handles channel changing on ixMicro's iXTV and TurboTV television tuner cards. You'll need Mac OS 8 and QuickTime 3.0 or later to use BTV Edit, but if you're playing with DV, you probably have the right equipment already.—DR



**Capture Movie.
 Capture Frame.
 Mute.
 Full Screen Mode.**

VIDEO CAPTURE, on the cheap—BTV Edit does a lot for \$25.

Controller Conundrum

So many ways to control a game

With the advent of USB, Mac gamers suddenly have dozens of options available to us in the way of controllers. Here are three of the more unusual ones.—JS

SAITEK CYBORG 3D GOLD

<http://www.saitek.com>

PRICE: \$49.95 SRP

CONTROLS: 4 analog axes, 10 buttons

WHAT'S STRANGE: This erector-set of a joystick will appeal to IKEA fans and lefties—with the included Allen wrench, you can reconfigure it for left-handed use.



GRAVIS XTERMINATOR DUAL CONTROL

<http://www.gravis.com>

PRICE: \$49.99 ESP

CONTROLS: 5 analog axes, 9 buttons.

WHAT'S STRANGE: The base is designed to sit on your knees, so you can use both hands.



MICROSOFT FREESTYLE PRO

<http://www.microsoft.com>

PRICE: \$54.95 SRP

CONTROLS: 3 analog axes, 10 buttons.

WHAT'S STRANGE: You control this one by tilting it. Unless you have a very good sense of what's level, you'll find gentle motions difficult to execute.

Scripter's Corner

Chatting with the Mac

Apple's speech recognition software has been an on-again, off-again proposition since the company first introduced this feature with the AV Quadras back in 1993. In OS 9, it's on again, if only as an optional install. In a cool twist, though, you can now use speech recognition from within AppleScript, through a program called Speech Listener.

If you don't have speech recognition on your system already, you can add it by clicking the Customize button in the Mac OS Install program that appears just before you actually install the system software. Make sure that only the check box for English Speech Recognition is checked. Click Install, and after restarting you'll have speech recognition functionality, along with an application called Speech Listener. Speech Listener does just that, and lets you add "listen for" commands to AppleScripts. The little script below uses "listen for" to ask whether or not you're tired.

A word of warning: Apple's speech recognition software has earned a reputation for flakiness over the last seven years, and its OS 9 incarnation appears to continue the tradition. If you encounter crashes, unstoppable AppleScripts, or the like, we will simply disavow all knowledge of your actions. That said, if you're feeling brave, have a good time!—JS

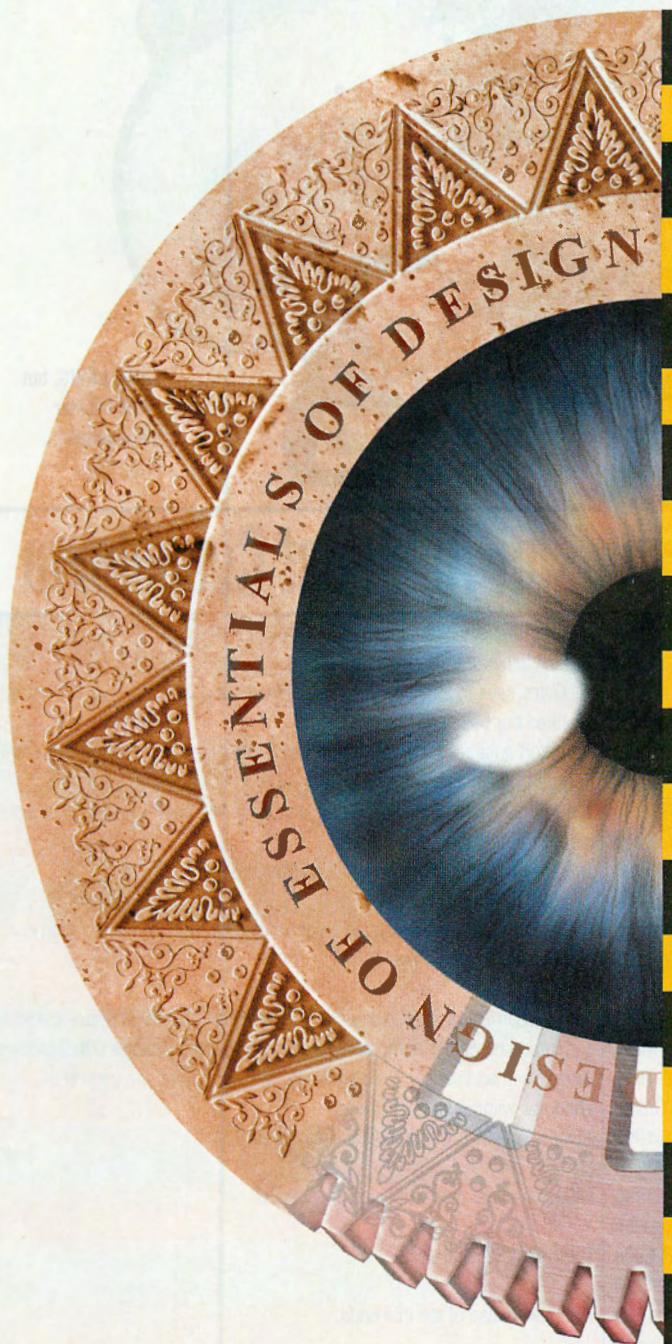


FIND THIS SCRIPT at <http://www.macaddict.com>.

```
--Speech Listener is an application provided by
--Apple to let you listen for speech
tell application "Speech Listener"
--the "Listen for" command listens for you to say
--one of the words in the list it first says the prompt
--string ("Are you sleepy?" in this case)
    listen for {"yes", "no"} with --
    prompt "Are you sleepy?"
--the result is currently in result--let's move it to
--thestatement for safekeeping
    copy the result to thestatement
--now we just need to find out which was said!
    if thestatement = "yes" then
        say "Take a nap!"
    else if thestatement = "no" then
        say "Great! Would you
like a nice game of chess?"
    end if
end tell
```

HERE'S A LITTLE SCRIPT that will ask if you're tired.

Illustration never looked so good.



Eye-catching illustration, isn't it? And yes, despite the glistening highlights, the realistic textures, the subtle shading, and the soft airbrushed effects, this is a completely vector illustration. And it's only possible with Canvas 7.

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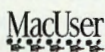


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Ghosts of Antitrust Past—and Future

Trickier monopolies, these days

Speeding tickets and parking fines aside, justice can be a beautiful thing. Especially when the target of that justice is the company we love to hate: Microsoft. But besides the tingly pleasure that we derive from seeing Bill Gates get nailed, we're also watching antitrust history in the making. Although it's tempting to think that Microsoft is simply joining the ranks of some of history's most infamous monopolies—Standard Oil, American Tobacco, and the like—there's much more to it than that. In bringing new life to the Microsoft Deathwatch, the government is defining what it means to be a monopoly in the era of technology companies.

During the Standard Oil and American Tobacco era, the sign of a monopoly was price-fixing, and breaking up those companies was a relatively simple matter of dividing up the monopoly to create smaller competing companies. The Microsoft case, though, has opened up the possibility that monopolies can constrain technological advances in an industry—a much more difficult standard to gauge than simple price-fixing.

According to Dan Wall, chair of the antitrust department at Latham & Watkins in San Francisco, the Microsoft case morphed from a simple case about Microsoft's battle to oust rival browser Netscape into a broader case about Microsoft's attempt to hold on to its Windows monopoly—a no-no, according to the Department of Justice. Ed LaRose, an attorney in the antitrust trade regulation area at Trenam Kemker in Tampa, Florida, believes that the case hinges upon how the government should apply established antitrust laws: "I think the challenge nowadays, especially in the Microsoft case, is how you apply those rules to a new industry, one that is...based a lot on ideas and less on hard assets."

As we go to press, it's not clear which court will hear Microsoft's appeal. The Supreme Court, when it reconvenes in October, will decide whether it will hear the case. If it rejects the case, Microsoft will head back to the Court of Appeals. Once the justice system works out the venue, Microsoft will have at least one more chance to argue that it doesn't deserve the penalty meted out to the great monopolies of the past. Regardless of the eventual outcome, though, we'll certainly be following the proceedings with at least a slightly vindictive interest.—*CL*



ILLUSTRATION BY NATHAN JUREVICUS

SAME LAWS, but much trickier monopolies.

The Microsoft Antitrust Countdown

JULY 1994 False Promises	Microsoft agrees in a consent decree to separate Internet Explorer from Windows.
JULY 1995 Famous Last Words	Bill Gates says to Intel execs: "This antitrust thing will blow over. We haven't changed our business practices at all."
SPRING 1996 Threats	Microsoft accuses Compaq of promoting Netscape and threatens to cancel Compaq's license to sell Windows.
AUGUST 1996 Netscape Steps In	The famous Netscape white paper, accusing Microsoft of antitrust actions, reaches the Justice Department.
SEPTEMBER 1996 Reading Material	The government starts requesting Microsoft documents.
DECEMBER 1996 TO JANUARY 1997 Oops	A Microsoft executive sends an email saying that Windows integration is a must in winning the browser war.
OCTOBER 1997 Not the Brightest Move	The Department of Justice says Microsoft violated the 1994 consent decree and forced computer companies to integrate Internet Explorer with Windows.
DECEMBER 1997 Direct Orders	Judge Thomas Penfield Jackson orders Microsoft to offer a version of Windows without Internet Explorer.
APRIL 1998 Go Janet, Go Janet	Janet Reno authorizes a federal antitrust suit.
AUGUST 1998 Gates on Film	Bill Gates undergoes videotape depositions.
OCTOBER 1998 The Start	The antitrust trial opens.
FEBRUARY 1999 The Finish	The main phase of the trial ends.
NOVEMBER 1999 Is That All?	Judge Jackson issues a finding of fact that says Microsoft used its power to stifle innovation, reduce competition, and hurt consumers.
APRIL 2000 Breaking Up Is Hard to Do	Judge Jackson rules that Microsoft violated antitrust law. The Department of Justice proposes breaking the company in two.
JUNE 2000 Movin' On Up	Judge Jackson approves the breakup proposal. The case heads for the Supreme Court.
OCTOBER 2000 To Hear or Not to Hear	The Supreme Court will reconvene and rule on whether it will hear the case. If the Supreme Court refuses to hear it, Microsoft will head back to the Court of Appeals.
2000? Resolution	Remember that the AT&T antitrust case spanned 8 years, and the IBM antitrust case dragged on for so long (more than 12 years) that the government no longer considered IBM a monopoly by the time the trial ended. This thing is far from over.

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droolworthy

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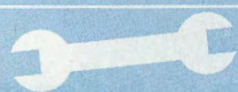


THIS HANDY FOLDOUT module attaches to your whiteboard, and poof! Anything you draw on the board gets digitized on your Mac.

PHOTOGRAPH COURTESY OF VIRTUAL INK

It's hard to make a whiteboard exciting, but Virtual Ink has done the trick with Mimio, a device that digitizes what you draw and puts it on your Mac. Just attach the folding capture arm to the whiteboard, plug it into your Mac, and then outfit your dry-erase markers with the included jackets to get started. Just think of the possibilities—teachers, home office folks, and artists will love it! Mimio has a host of even cooler tricks up its sleeve—many more than we can fit here. Check out the Web site for more details.—*DR*

makework



The ATEN UC-232 USB-RS232C Serial Converter

Say you've got an old modem, a serial-based graphics tablet, or any other moldering serial hardware—you're probably in the market for a serial converter. If a PC-using friend offered you an ATEN UC-232 USB-RS232C adapter (<http://www.aten.com>, \$79 SRP), or if you just found one for cheap at a garage sale, what could it do for you? Get it up and running, and it gives you just what you need, without even requiring the usual modem cable—the UC-232 ends with a standard 25-pin connector. But like so many other things in life, this adapter doesn't come with Macintosh drivers.

When the company told us that no drivers are available, we took a peek at the adapter in the Devices And Volumes panel of the Apple System Profiler (if you haven't played with the Profiler before, look for it in your Apple menu). Sure enough, ATEN doesn't actually *make* the chip set its converter uses—the device identified itself as coming from Future Technology Devices International Limited. A quick trip to that company's Web page (<http://www.ftdi.co.uk>) revealed a set of alpha drivers for the Mac OS. We installed these, and promptly found ourselves able to use the serial port converter.—*IS*



PHOTOGRAPH BY AARON LAUER

techinfotidbit

How to Remove QuickTime

There are times when your QuickTime installation—due to disk corruption, mischievous toddlers with an urge to demonstrate their hand-eye-system files-Trash coordination, or those little green men that no one can see but you—degrades to the point where you just want to remove it all and start over again. Here's how to wipe QuickTime from your drive.

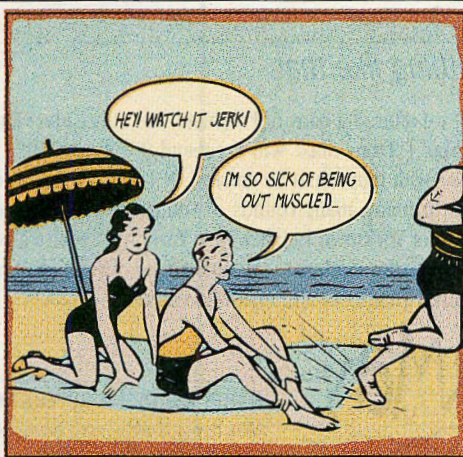
- 1 Run the QuickTime installer. Click Continue, and the usual software license will appear. Read it (or ignore it), then click Accept. You should now be at a screen labeled Choose Installation Type.
- 2 Select Custom Installation, click the Continue button, then click another Continue button in the next dialog box that pops up, which warns you that no other programs can run while the installer does its stuff.
- 3 In the pop-up menu at the top of the next window, choose the Uninstall option at the bottom of the menu. Click the Uninstall button in the lower-right corner. The installer will dutifully remove QuickTime from your system. You may get an error message saying that it could not delete some files and/or folders because they were in use. That's OK—you can empty the Trash the next time you restart your Mac.
- 4 Finally, open the Extensions folder inside the System Folder and remove the Sound Manager extension. Your uninstall is now complete, but you should reinstall QuickTime 4 (or an older version) because some programs need the Sound Manager and may crash if it's missing.

This pearl of wisdom came from Apple's Tech Info Library at <http://til.info.apple.com>. Visit it today for tons of useful tips and tricks.—*DR*

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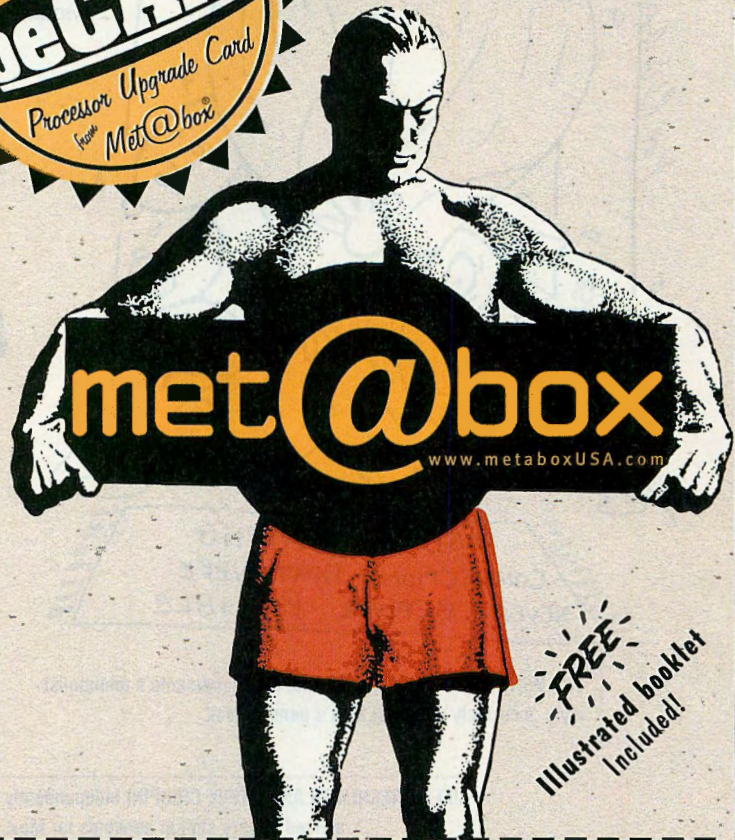
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Gray/White G4 PCI

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Draw Max Winners

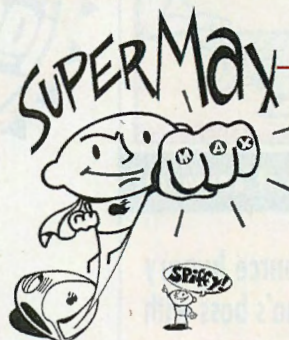
Fifty-one entered, but there could only be one—or five—something like that.



THE WINNING ENTRY—we felt that Mr. Planamento's minimalist style accurately captured Max's general look.

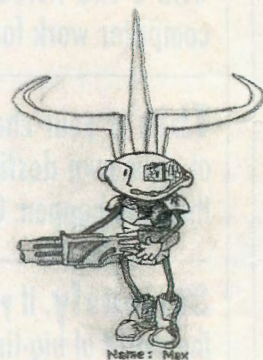
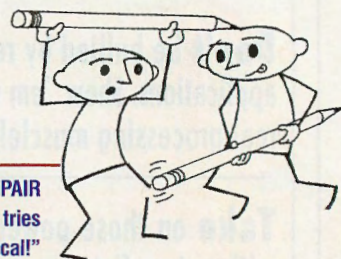
JEFF GREENLAND AND STEVE CRISPINI independently arrived at very similar concepts for Max.

In our June 2000 issue, we offered a copy of Freehand 9 to the reader who send us the best sketch of Max ("Draw Max! Win Freehand 9!", Jun/00, p22.) You made things tough on us—with more than 50 entries, we had to do some serious decision-making. Thanks to many, many rounds of voting, we finally selected a winner—Gary Planamento of Yorktown Heights, New York, will receive a copy of Freehand 9. Four runners-up who made it to the final round of voting will receive MacAddict hats and T-shirts. Thanks to all those who entered!—IS



MARTY KNUTSON'S SUPERMAX gives Max considerably more power than he actually wields around here.

ART LUM'S ESCHER-INSPIRED PAIR of Maxes bore the caption: "Max tries to clone himself. What a rascal!"



Thumbnail Sharpening

A Tip to Spiff Up Your Sites

When you create thumbnails for your Web page, you probably just shrink your images in Photoshop. There's a better way, though—first blur the full image (select Blur or Blur More from the Filter menu), then shrink it to thumbnail size using the Image Size item from the Image menu. Finally, apply a sharpen filter to the thumbnail. (For large numbers of thumbnails, automate the process using Photoshop's Actions feature.) This does a much better job of preserving detail than simply shrinking the original would do.—JOH



THIS SHOT, minimized simply using image size, is somewhat blurry and indistinct.



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scrapbook

A dark journey into the iBook's innards.

iNside the iBook

by David Reynolds

A year ago this summer, Apple introduced the iBook. To wish it a happy first birthday, we decided to delve into the book's innards and show you what makes it tick.

RAM-Hungry Pig

Here's a sight iBook owners have to face sooner or later: the iBook's RAM expansion slot. You should fill this with another RAM card as soon as possible.

ID, Please

The iBook's Ethernet hardware address (a permanent, hard-coded network address) appears here for your easy reference—not that you'll ever need it.

AirPort Connector

This small metal end plugs into an AirPort card, which sits under the wire bail and rests on the metal tray above—the one just below the Apple logo on the display. (We've removed the tray to show the RAM slot below.)

Three Gigs of Storage

The IDE hard drive sits in a metal cage, waiting for an upgrade to a more roomy—and reasonable—hard drive. Lots of warnings accompany this gadget, just in case you were thinking about making additions yourself.

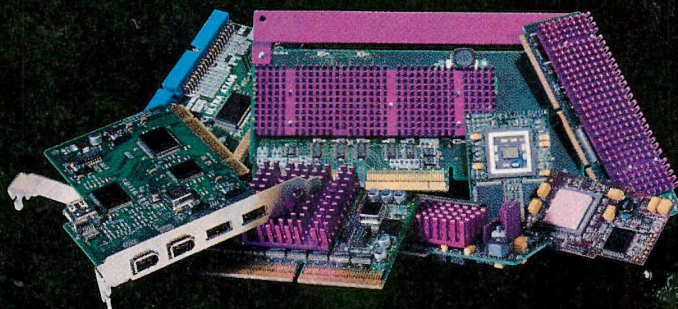
Plugging In

The iBook's keyboard connects to the motherboard just below the RAM expansion slot. If you ever need to remove the keyboard, this is where you can gently detach it. Careful, though—those wires are fragile.

Easy Instructions

In case you don't know how to install an AirPort card, you'll find instructions printed in petroglyph form on top of the CD-ROM drive.

PHOTOGRAPH BY AARON LAUER



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We are introducing three new ways to upgrade your Macintosh. Try our Tempo™ Ultra ATA66 PCI host adapter card, our new 400 MHz PowerBook® processor upgrade, and our Tango™ USB/FireWire® PCI combo card. Depend on Sonnet for simply fast Macintosh® enhancement products. To learn more, call 1-800-786-6260 or visit our website at:

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Every Mac addict knows that what makes Apple computers different from PC hordes is the fact that they have...well, personality. The original Mac was the first computer that you could actually carry with you. It delivered the accessible, powerful Mac graphical interface—and in an industry marred by esoteric conflicts, techno-babble, and obscure line commands, the original Mac was one of the few computers that people actually enjoyed using. The inventors of the Mac loved their creation, and the people who used Macs cherished them.

For a while there, however, Apple teetered on losing the intangible personality of the Mac. The product line had become nothing short of baffling. Utterly random numbers such as 1400, 6116, and 8500 described distinct Mac models. To understand which machine was right for you, you had to digest information about three processors; understand the relative merits of Nubus, PDS, PCI, and Comm slots; and decide between SCSI and IDE bus systems. In a quest to maintain isolated internal innovations at a PC-industry pace, Apple lost its bearings. The Mac was becoming a machine that Apple's engineers, designers, and programmers squabbled over and that users didn't understand.

The personality is back. Apple's head-turning new desktop line has all the pizzazz and simple elegance of the original Mac if not more. With smooth surfaces, elegant colors, and intricately matching components, these clutter-reducing, space-saving, drool-inducing machines are once again the products for passionate people, for those who want more than a mere office tool. With stunning attention to detail and a big-picture approach, Apple is once again making computers deserving of your adoration. Flip through the next few pages at your pocketbook's own risk, 'cuz you *will* want one of these new Macs when you're through.

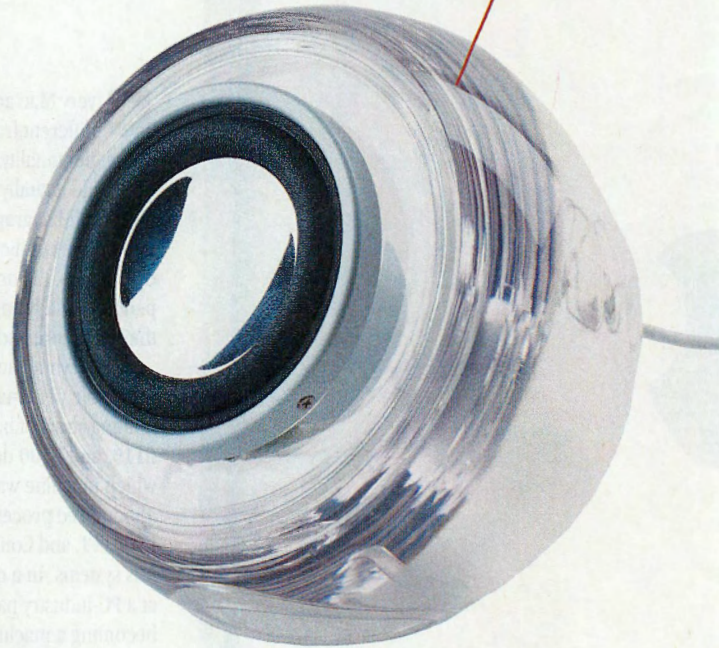
Power Mac³

Perhaps you like Apple's compact, transparent, potent new Power Mac G4 Cube because of its looks, power, and quiet elegance, but we like it because of the vast volume of jokes to which it lends itself. Borg collective jabs, anyone? Snickers about Steve Jobs reviving the NeXT cube? How about an elaborate toaster comparison? Or our personal favorite: a quip about its resemblance to a box of Kleenex, which you might need after you first get your hands on the Cube.

Wisecracks aside, probably the first response you have to Apple's graphite-and-transparent supercomputer is to wonder, "Is it for me?" At \$1,799 for the low-end model, Apple dropped the small polyhedron (9.8 inches tall by 7.7 inches wide by 7.7 inches deep, at 14 pounds) smack in the middle of the G4 price range. Our best answer to your question is that if you're already mumbling, "Man, I gotta get one of those things," under your breath, you *know* the answer. If you need PCI slots, or just want a second processor for beating on Photoshop, you should opt for a G4 tower. But the Cube's small footprint, quiet demeanor, and silky-smooth, futuristic looks make it delectable for anyone who wants a really attractive, space-saving computer with a bit more power and screen flexibility than an iMac—complete with a DVD-ROM drive that pops discs in and out of the top. Here's a tour of Apple's little giant. Get ready to start mopping up the drool.

Speakers

A pair of clear, plastic orbs of sound accompany every Cube sold. Built by Harman/Kardon, which also gave us the iSub, these USB all-digital balls provide the only sound coming from the Cube.



Handle

Just push down on this bar and the Cube's handle pops up, allowing you to pull out the core. You can easily secure this handle with a Kensington lock to prevent unrequested upgrades.

Ethernet

The standard Cube comes with 10/100Base-T Ethernet, but you can upscale to gigabit Ethernet through the Apple Store.

Reset Switches

We wish you didn't need to know where the reset switches are, but when you have to force your machine to restart, you'll appreciate these guys.

FireWire

With the requisite two FireWire ports, the Cube easily connects to scanners, CD-ROM burners, and FireWire-equipped DV cameras for video editing in iMovie 2 (which comes free with the Cube).

USB

USB becomes all the more critical on the Cube, as Apple has ditched the audio-in and audio-out ports. The Cube comes with the Harman/Kardon USB speakers, but if you want to do any recording, from a new alert sound to a hit song, you'll need some sort of USB or FireWire audio-in device.

Modem

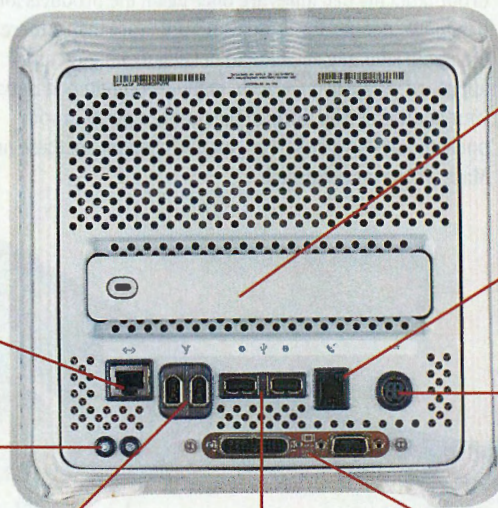
Every Cube gets its own 56-kbps modem.

Power

To save space, Apple moved the power supply outside the Power Mac Cube, as in the PowerBooks.

Apple Display Connector and VGA port

Apple's all-new monitor connection system means you don't need a power cord for your new Apple-manufactured display. But it also means you need a port like this one. Luckily the Cube also has a VGA port for those of us with older monitors.



RAM

Thanks to the elegant pullout design, you can easily upgrade the Cube's standard but somewhat meager 64MB of RAM to 1.5GB.

Processor

A 450MHz G4 provides the brains behind the Cube, but power zealots can go up to 500MHz through the Apple Store. The processor comes on a standard daughtercard—we don't want to be the first to attempt an upgrade, though.

Heat Sink

Apple hardware VP Jon Rubinstein told us you "start with the heat sink and go from there." The fanless cube is essentially a computer wrapped around a sizable heat sink.

Hard Drive

The Cube features an Ultra ATA/66 hard drive. The standard size is 20GB, but you can go up to 40GB at the Apple Store.

AirPort

Every cube comes ready for AirPort. Ceramic disks on the sides of the box inductively couple to the core's AirPort antenna, amplifying the signal.

PCI Slots?

Nope, no second monitors, superfast SCSI, or PCI-based TV tuners for this puppy.

Graphics

A special (shortened) Rage 128 Pro graphics card fills the Cube's 2X AGP slot. 3dfx has announced that the company will also support the new Apple Display Connector, but there's no word yet on the compatibility of Display Connector cards with the Cube.

Gleaming the Cube

Both standard Power Mac G4 Cube configurations come with 10/100Base-T Ethernet, a 56-kbps modem, an ATI Rage 128 Pro graphics card, a slot-loading DVD-ROM, and a pair of crystal-clear Harman/Kardon orb-shaped USB speakers.

Model	450MHz Power Mac G4 Cube	500MHz Power Mac G4 Cube*
Price	\$1,799	\$2,299
Processor	450MHz G4	500MHz G4
RAM	64MB (expandable to 1.5GB)	128MB (expandable to 1.5GB)
Hard Drive	20GB	30GB

*available through the Apple Store only

Power Mac MP

Not quite as overhauled as the iMacs or as shocking as the Cube, the love-handled tower Power Mac G4 nevertheless also got a bit of attention in Apple's latest round of updates. The biggest boon is, of course, the addition of a second G4 processor in the 450MHz and 500MHz models at no extra cost. The other major addition is an across-the-board jump to gigabit Ethernet.

While it certainly sounds impressive to have two G4 processors at your fingertips, the reality of current

Mac multiprocessing is a bit less thrilling. To start with, only a few programs currently take advantage of multiprocessing—Adobe Photoshop and Casady & Greene's SoundJam are the most notable. Sure, the ability to encode CDs to MP3 faster than your CD-ROM drive can deliver the information may seem enticing, but the G4's new multiprocessing capability doesn't provide the versatility one might expect.

Owners of dual-processor Macs will really start to see the power of these machines after Mac OS X arrives in public beta this September. Apple's new operating system will use multiple processors intuitively (for more, see "All about Multiprocessing," below).

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More G4s

You can't see them, but believe us, there's two processors in this thing.

The new standard configurations for the Power Mac G4 tower all include an ATI Rage 128 Pro graphics card, a 56-kbps built-in modem, Ultra ATA/66 hard disks, and gigabit

Ethernet. Also note that none of these configurations comes with a built-in Zip drive. Additional build-to-order options include a Zip drive (\$80) and an Ultra SCSI PCI card (\$49).

Model	400MHz Power Mac	450MHz Power Mac	500MHz Power Mac
Price	\$1,599	\$2,499	\$3,499
Processors	One 400MHz G4	Two 450MHz G4s	Two 500MHz G4s
RAM	64MB (expandable to 1.5GB)	128MB (expandable to 1.5GB)	256MB (expandable to 1.5GB)
Hard Drive	20GB	30GB	40GB
DVD	DVD-ROM	DVD-RAM	DVD-RAM

All about Multiprocessing

Although you'd think two G4 processors would make a Mac run twice as fast, that's not necessarily the case. To give you the complete scoop on multiprocessing computers, here's the *MacAddict* list of frequently asked questions—and answers—about multiprocessing.

What programs run faster on a multiprocessor Mac?

When it comes to multiprocessing, you can divide programs into three categories: single-threaded, multithreaded, and multiprocessor-aware.

- **Single-threaded programs** (usually games) can only perform one task at a time—that is, they run in a single thread. They will not run any faster under two processors in either Mac OS 9 or Mac OS X.

- **Multithreaded applications** can perform several tasks at once. They split their tasks into several threads, which the computer runs simultaneously. Most Mac apps these days are multithreaded. Mac OS 9 can't move these separate threads onto different processors, but if programmers Carbonize apps (make them Mac OS X-native), Mac OS X will know how to spin off the threads onto the least busy processor.

- **Multiprocessor-aware applications**, specifically written to use multiple processors, know how to divide up tasks and hand them to the least busy processor. These apps (assuming they're Carbonized) will run faster under both Mac OS 9 and Mac OS X. That list includes Photoshop, SoundJam, and,

believe it or not, ColorSync, which uses multiple processors to process matching algorithms.

How much of a speed boost will I see?

In a best-case scenario (say, a multiprocessor G4 running Photoshop), you'll probably see about an 80 percent speedup. With other apps, you might see a boost anywhere from 0 percent (in MP-unaware applications) on up—stopping short of 100 percent. The reason multiprocessor-aware applications can't get a 100 percent speed increase is that the system needs some overhead for coordinating processor activity.

Is a G4 with two processors faster than a 1GHz Pentium III?

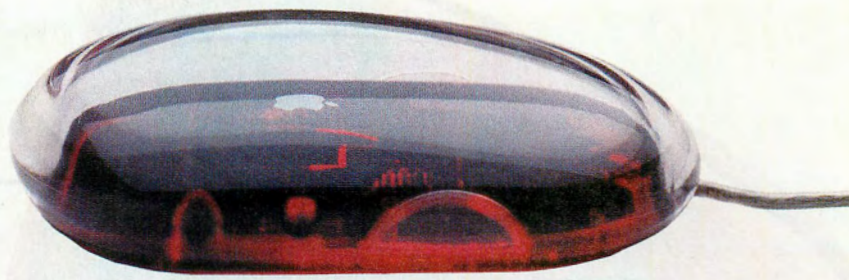
Yes—but only under special circumstances, such as when you're running a program that understands multiple processors and takes advantage of AltiVec (for instance, Photoshop). Otherwise, you probably won't see any speedup, simply because the app isn't making full use of the second processor. Under Mac OS X, though, that will change—the system takes charge of using all the processors as efficiently as possible. Then a dual-processor G4 under Mac OS X will probably run faster than a 1GHz Pentium under a greater variety of circumstances.

Are these Apple's first multiprocessor machines?

Nope. Back in 1996, Apple released the Power Macintosh 9500/180MP, which had two 180MHz 604e processors.

Optical Mouse

Shipping with every new desktop Mac, Apple's optical mouse is an eerie sight in the dark with its dim red light gleaming through the translucent casing. With optical tracking, a tiny camera images a red LED (light-emitting diode), illuminating the surface directly below the mouse. A DSP (Digital Signal Processor) then compares each frame to the previous frame, and figures out in which direction the mouse is moving. The two frames must have appreciable overlap—whip the mouse along faster than 14 inches per second, and the cursor flies off randomly. The “button” consists of the



Move over Intellimouse Explorer—Apple's new optical mouse is translucent and glows red.

mouse's entire top surface, except for two dimples on the sides that allow you to lift the mouse. A wheel on the bottom sets the amount of force necessary to generate a click. Alone, the optical mouse costs \$59.

Extended Keyboard

We knew it had to happen one day: Our little iMac keyboards have finally grown up (sniff). Apple Extended Keyboard fans, rejoice—the new keyboard has a full-size inverted T including cursor keys, all six special buttons (including Forward Delete and End), and a full row of F1 to F15 function keys. Apple has also added four new buttons that allow you to control volume up, volume down, mute, and CD ejection from your keyboard. The keyboard has one notable absence, though—this is the first Apple keyboard since the Macintosh II that lacks a Power key. Instead, Apple has moved the Power button to the monitor. The new keyboards come standard with the entire new desktop line, but you can buy it separately for \$59 from the Apple store.



108 keys, but no Power button.

Apple seems to love the retrofuturistic TV look.



New Monitors

If you bought a Mac just before Apple's recent Macworld Expo announcements, you may want to sit down before you read this. As it turns out, you'll need to buy a new Mac or graphics card (not available yet) to use any of Apple's new displays. Apple has scratched the standard 15-pin VGA monitor connectors in favor of the custom Apple Display Connector (ADC), which carries video, power, and USB in one cable. Unfortunately, at the moment there's no way (short of a hack) to hook one of these new beauties to an older Mac without replacing your graphics card (3dfx has already announced plans for ADC support).

The new line includes a 17-inch CRT-based Apple Studio Display, a 15-inch LCD Studio Display, and a new version of Apple's holy-crap-I-never-imagined-a-flat-screen-that-big 22-inch Cinema Display. Now based on Mitsubishi's Diamondtron technology, the CRT provides a clean, ruler-flat screen; as before, it uses ColorSync to maintain color accuracy as the phosphors age. The two LCD screens resemble their previous incarnations.

Monitor Madness

All Apple displays come with a two-port USB hub and an ADC connector.

Model	17-inch Apple Studio Display	15-inch flat-panel Apple Studio Display	Apple Cinema Display
Price	\$499	\$999	\$3,999
Size	17-inch diagonal	15-inch diagonal	22-inch diagonal
Viewable	16-inch diagonal	15-inch diagonal	22-inch diagonal
Technology	Mitsubishi Diamondtron	Flat-panel LCD	Flat-panel LCD
Maximum Resolution	1,600 by 1,200	1,024 by 768	1,600 by 1,024



iMac

On its second anniversary, the iMac line went from yummy to smart. No longer can you get the fruity mélange of colors known as blueberry, lime, grape, tangerine, and strawberry. Instead, Apple opted for the classier graphite route with the fall L.L. Bean-esque hues of indigo, ruby, sage, and snow (just make sure you don't use your snow iMac before Memorial Day). The graphite DV Special Edition remains intact as part of the iMac line.

If colors don't turn you on, perhaps the new pricing will. Apple has upped the iterations of the machine from three to four (now featuring an iMac DV+ category), and has dropped its plain old entry-level iMac to \$799—the lowest price ever for an Apple desktop computer. That means you can get iMacs all around for every kid, parent, and pet in the family without breaking the bank. Now *that* is cool.

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Click your ruby iMac three times and say, "There's no place like home."

The Best Video for the Buck

In an effort to drive home the point that its iMac line is a kick-ass consumer DV editing app, Apple offers what it calls Theater Mode in the new iMac line. Theater Mode is a Monitor control panel preference. When turned on, it enhances the quality of

full-screen video by increasing brightness up to three times and improving color saturation. QuickTime 4.1.2, Apple DVD Player 2.2.1, and iMovie 2 automatically enable Theater Mode. Now, if only DV cameras didn't cost as much as the computer itself...

What iMac Color Are You?

Picking the right color for a sweater or nail polish is difficult enough, not to mention finding the iMac color that suits you best. After all, you wouldn't want to buy the snow iMac and then discover that the white washes you out. So before you commit an iMac fashion

faux pas you'll live to regret, check out our chart. We've picked the best iMac colors for you based on your color type, as defined by Color 1 Associates (<http://www.dressingsmart.com>), an international image and style consultant.

Characteristics	Color Type	Your Best Colors	Celebrities with Your Color Type	The iMac(s) for You
Dark brown or black hair, ivory to olive to dark brown skin tones	Light Bright	Bright, bold, vibrant colors	Jacqueline Kennedy, Connie Chung, Ruth Bader Ginsberg	Ruby
Golden blond to brown hair with golden highlights, ivory to dark brown skin with golden tones	Gentle	Bright yet delicate colors	Hillary Clinton, Marilyn Monroe, Courtney Love	Snow
Blond to fairly dark brown hair and some redheads, ivory and pink beige to dark brown skin with pink tones	Muted	Toned-down, subdued colors	Gwyneth Paltrow, Jodie Foster, Jane Pauley	Sage
Blond to black to red hair, ivory beige to golden beige to olive to dark brown skin tones	Contrast	Slightly toned-down colors	Julia Roberts, Oprah Winfrey, Kathie Lee Gifford	Indigo, Graphite

The New iLineup

Indigo, ruby, sage, graphite, snow...do you feel like you're buying a sweater?

All iMacs come with 10/100Base-T Ethernet, 56-kbps internal modem, an ATI Rage 128 Pro graphics card, Ultra ATA hard drives, and the new keyboard and optical mouse. All three DV editions come equipped with FireWire, the all-new iMovie 2, and VGA ports for video mirroring.

Model	iMac	iMac DV	iMac DV+	iMac DV Special Edition
Price	\$799	\$999	\$1,299	\$1,499
Processor	350MHz G3	400MHz G3	450MHz G3	500MHz G3
RAM	64MB	64MB	64MB	128MB
Hard Drive	7GB	10GB	20GB	30GB
CD/DVD	CD-ROM	CD-ROM	DVD-ROM	DVD-ROM
FireWire-Equipped	No	Yes	Yes	Yes
AirPort-Ready	No	Yes	Yes	Yes
Colors	Indigo	Indigo and ruby	Indigo, ruby, and sage	Graphite and snow

iMovie 2: This Time, It's Personal

iMovie isn't just for iMacs anymore—Apple has revved its plucky consumer DV app to version 2 and is now preinstalling it across the entire desktop line. The already spoiled owners of a new Mac not only get the program for free, but will also be the very first to get their hands on iMovie 2, which features new audio and visual effects capabilities, a refined interface, and a range of new editing features.

Among the additions to iMovie's video editing repertoire are the ability to change the speed and direction of video clips and make them go faster, slower, or even play in reverse, as well as the ability to separate audio from video tracks for layered audio and video interaction. That means you can replace the video in one section of your movie with another clip while maintaining the audio from the first video—creating a rich voice-over effect in a scene.

Other improvements to iMovie include new filters such as Sepia Tone, which lends your video an aged-photograph, light brown, monochromatic feel; Soft Focus,

which reduces sharpness; and Black And White for turning it into an old film-noir-style flick. Additionally, you can now restore trimmed clips; adjust video color, contrast, and brightness; control the speed and direction of transitions; and preview clips through your DV camera as you can in Apple's Final Cut Pro.

Interface improvements include an expanded clip palette, which lets you load as many video clips as you wish, as well as a better-integrated navigation system for flipping easily from the clip palette to the Titles, Effects, Audio, and Transitions palettes.

Unfortunately, you can't get iMovie 2 for free via the Apple Web site, as with the original iMovie. Instead, the Apple store will make it available for purchase and download for \$49 starting in September. The recommended system requirements for iMovie 2 are a bit steep—a 300MHz or faster G3 or G4 processor, 64MB of RAM (128MB recommended), Mac OS 9.0.4 or later, QuickTime 4.1.2 or later, and, of course, a DV camcorder with FireWire.



Apple's iMovie 2 now features an unlimited clip shelf.

Picture perfect

Create your own digital photo lab at home and start making perfect prints

by David Reynolds

illustration by Cherie Bender

Don't tell anyone, but *taking* a photo is the easy part—getting it to *look* good is the real adventure in pain. If you go the digital route, digital cameras are prone to pixilation, shortened dynamic range, color shifts, and exposure problems. Even if you take pictures with a regular camera, you still have to scan the photo, which presents its own set of problems, as scanners often produce slightly muddy, somewhat blurry digital images. Throw in the variable of printing your photos on an inkjet, and you have a headache waiting to happen. But don't despair just yet—there is hope.

Printing your photographs at home on an inkjet can produce spectacular results—almost indistinguishable from 35mm prints—plus it gives you control over the final print. If you correct your photos' flaws with image editing software and select the right printer and paper, you'll produce prints good enough to put one-hour photo shops six feet under. Well, OK, maybe they won't be that great—but following these steps will produce professional-looking results.



If you want to talk pictures, visit our forums at <http://www.macaddict.com/debate>.

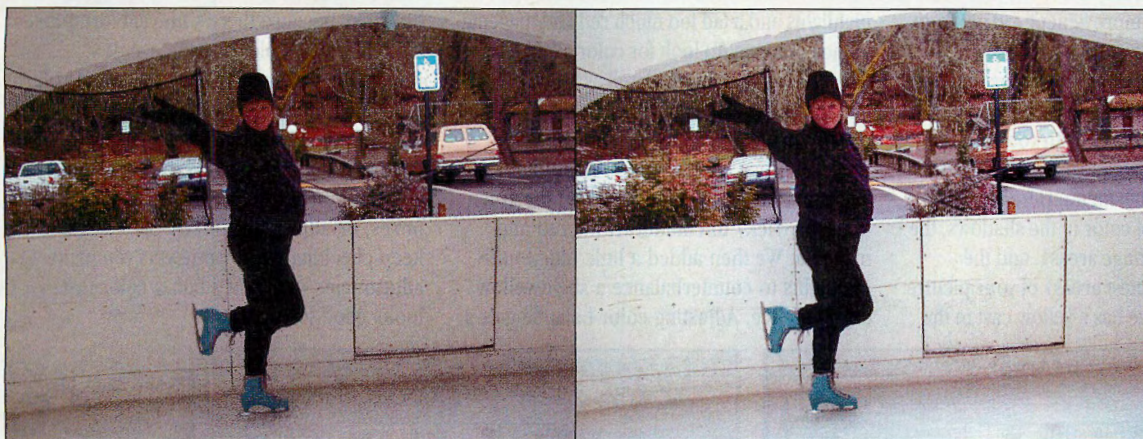
True Colors

We'll assume you have the photos you want to work on digitized and ready to go, whether you've taken them with a digital camera or scanned them in. Now you want to use an image-retouching program to get your pictures primed for printing. Here we'll use Adobe Photoshop (\$599, <http://www.adobe.com>), although you can apply these tips to any good image-editing program.

The first step toward crafting a perfect print is to tweak the color of your image. Although today's digital cameras offer much better color reproduction, most digital photos can benefit from a little color tweaking. Scanners, too, can cause problems, adding an unwanted color shift (a color cast) to scanned photos. Either way, the following method will give your photos better color. Just remember that color

correction is more of an art than a science—sometimes it comes down to opening dialog boxes and playing with controls to see what looks best. If you're particularly interested in experimenting, you should use Photoshop's Adjustment Layers function to put each of your changes on its own layer, leaving the original photo untouched in case you make a mistake or don't like the results of your changes.

STEP ONE: Set Levels



Although adjusting levels can only do so much, it can bring a muddy foreground to life (right).

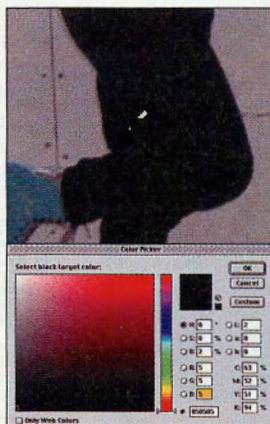
Open your image in Photoshop and select Levels from the Adjust submenu in the Image menu. You'll get a dialog box where you can set and adjust your image's black point, white point, and midtones. We'll set the black point first, then use the same technique to set the white point. Double-click the black eyedropper (under the Auto button) to bring up the Color Picker window. Enter a low value in the R, G, and B boxes in the lower-right corner—we chose 5 because 0 looks too black, causing your printer to spit out a lot of ink. (This number sets the value of black; in this case we're setting it to a very, very dark gray). Click OK and, with the black eyedropper still selected, click the blackest part of the image. Photoshop will reset that pixel to the value you entered in the Color Picker, then bring the rest of the image in line with the new black point, properly adjusting darker colors and improving the image's contrast.

The Levels dialog box features three triangles—black, gray, and white—located on a slider along what looks like a cross-section of a mountain. By sliding these triangles back and forth, you can sometimes correct contrast problems in an image. The

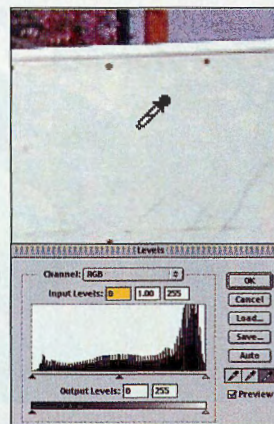
gray triangle in the center sets the image's gamma, which is like the Continental Divide of digital images. Moving it to the left will lighten the midtones of the image, while moving it to the right will darken them.

Once that's done, continue with the white eyedropper: Double-click it; set the R, G, and B values to a number just under the maximum setting of 255 (we chose 250); close the Color Picker; then click the whitest part of the image with the eyedropper. This sets the pixel you just selected to white and

adjusts the highlight colors accordingly. Of course, we ignored our own advice by setting our whites against the whitest part of the foreground. Because we shot this image under a canopy, the camera read the lighting outside the skating rink, making the image too dark. By selecting the whitest area inside the rink, we can adjust the white levels and light our subject properly. Of course, this makes the background a bit overexposed, but we decided that seeing our subject clearly was the more important consideration.

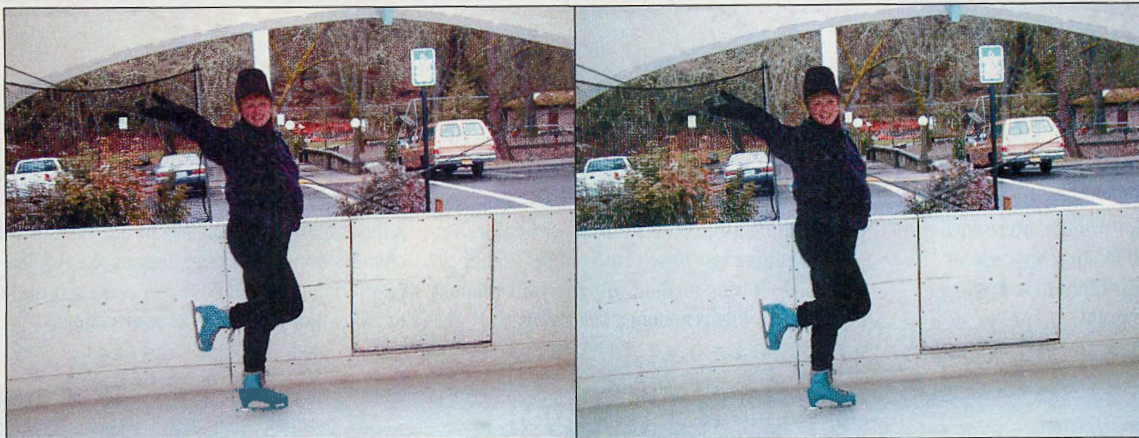


Setting the black level adjusts darker colors and contrast—in this case, we're using a section of the black pants.



We've chosen to set our whites against the wall of the skating rink—this overexposes the background a bit, but puts our subject in a better light.

STEP TWO: Set Color Balance



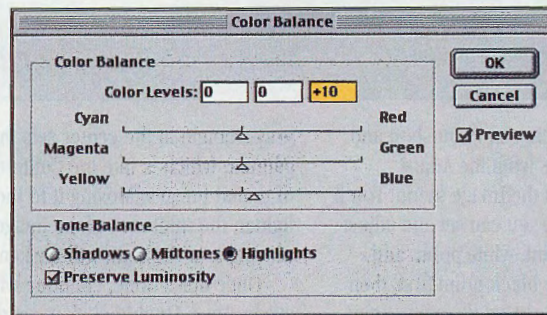
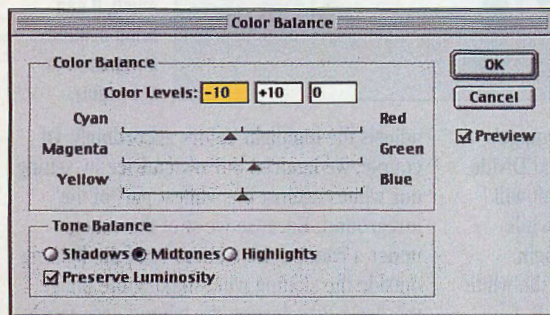
Although the cold weather added a bit of magenta to our subject's cheeks, they weren't really *this* rosy. That's why we need to adjust the color balance (right).

Despite the improvement you get from setting an image's black and white points, sometimes the color remains a bit off. That's when it's time to dig into the Color Balance dialog box. With your image open, select Color Balance from the Adjust submenu of the Image menu. Here you can adjust the amount of color in the shadows, the midtones (the midrange areas), and the highlights (the brightest areas) of your picture. This particular image has a yellow cast in the

highlights and a tad too much red and magenta in the midtones. To look for color casts, check the subject's skin tones as well as any areas that should be white but aren't.

To correct our color problems, we put a touch of green and cyan into the midtones (a setting of -10 for cyan and +10 for green does the trick) to counteract the red and magenta. We then added a little blue to the highlights to counterbalance a slight yellow tint in the ice. Adjusting color balance gets a

bit tricky because there's no real formula—it's really about pleasing the eye. Just remember that you're using these controls to balance two colors; if you see too much of one, you can just move the slider away from that color to correct it. You can either enter numbers into the three color vector boxes, or adjust the sliders. Click OK, and keep checking your preview as you make adjustments until you attain a color that looks good to you.



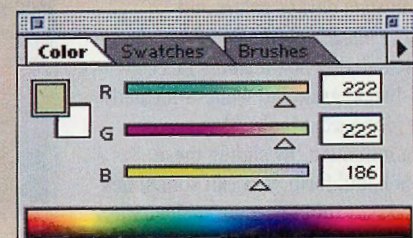
By tweaking the image's midtones and highlights, we can make the colors look as close as possible to the original hues.

TIP For those of you used to converting your photos to CMYK to send to a four-color press, leave the image in the RGB color space for home printing and let your printer's driver handle the conversion to CMYK. If you do the conversion in Photoshop, you may get an unwelcome color shift and muddy tones.



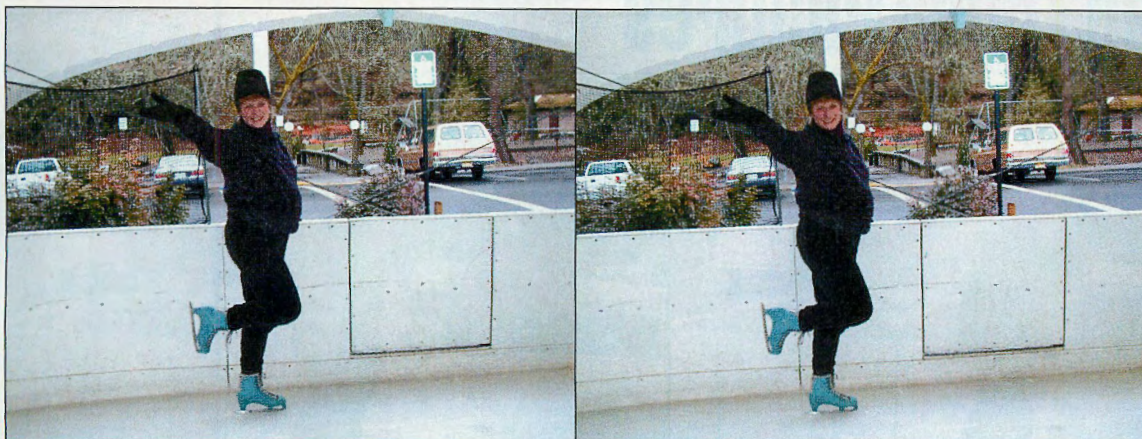
The left is simulated RGB; the right is CMYK. Notice the difference in color? Most inkjet printers do CMYK conversion without your help, so leave your image in RGB.

TIP If you're having trouble determining exactly what's white and what's black, hold down the mouse button with the Levels eyedropper selected, and watch the Color dialog box. This box will show the R, G, and B color values of the pixel directly underneath your mouse, letting you clearly see where the whitest and blackest parts of your image fall. Watch the numbers as you move your mouse around—values of 0 are black, values of 255 are white. The three colors should have relatively close values—if one value is much higher or lower, that pixel has a color cast.



You can see this color is approaching white except it has a slight color cast.

STEP THREE: Set the Saturation



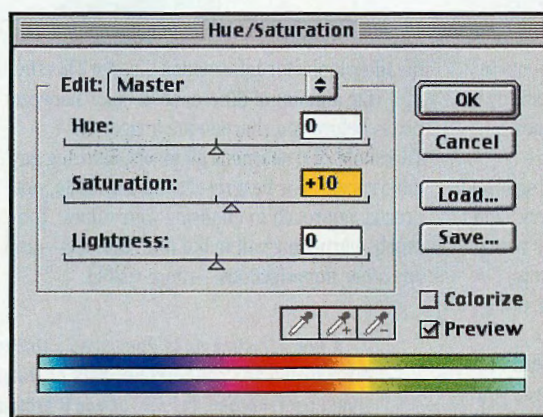
The image on the right has a bit more color saturation than the one on the left, making for a more realistic print. The difference is subtle, but noticeable to a trained eye.

Finally, you'll want to set the color saturation properly. Because for years consumers have been telling printer companies that they want photo prints with strikingly vivid color, some printer drivers will oversaturate an image to make that happen. You can use the following technique to desaturate the image a bit if your printer spits out photos that sacrifice realism for the sake of vibrant color. In our case, though, our image really is a bit undersaturated, so we want to correct this problem with the saturation control.

Select Hue/Saturation from the Adjust submenu of the Image menu, and bring up the Saturation level just a bit—we chose a value of +10. Since there's no easy rule of thumb for determining the best value, just use your eye to figure out what looks right

to you. Remember that inkjet printers tend to oversaturate color a bit, so it's best to err on the conservative side when you add saturation. You can also play around with

the Hue and Lightness controls if you want, but you may get muddy, off-color results. Most of the time it's best to leave Hue and Lightness set to 0.



By adding more saturation, you can compensate somewhat for a lack of color. Add too much, though, and the photo will start looking like a 1960s concert poster.

The Bigger, the Better

One of the most exciting possibilities—and most common uses—of home photo printing is the ability to do standard enlargements without waiting for the photo lab to finish the job. Using standard 8 1/2-by-11-inch photo-quality glossy film, doing your own enlargements up to about 8 by 10 is relatively easy and will look fine with prints from 2-megapixel cameras. Beyond that, though, you'd better have a very high-resolution digital camera (or big scans), because you'll soon hit the resolution limit of all but the best digital cameras.

To print fine photo enlargements, make sure your printer is clean and you're using the highest-quality glossy inkjet film you can buy. Paper really does make a difference, and you'll spend around \$2 per sheet for high-quality

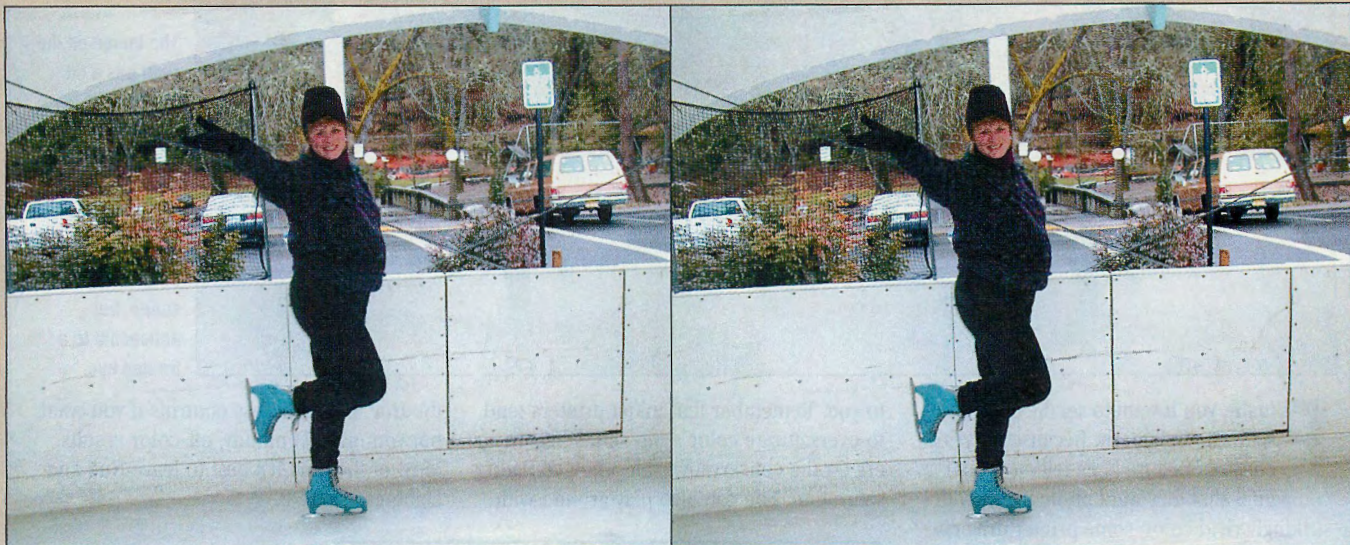
inkjet photo film. Glossy film is generally higher quality than glossy paper, so go for that option when you see it. Beware, though: Printing on high-quality glossy film at high resolution will showcase the flaws in your digital images—such as JPEG compression artifacts and a small dynamic range. To get around these problems, avoid adjusting levels or sharpening your image too much. Or, better yet, always shoot at the highest possible resolution, using a

lossless file format (such as TIFF) if your camera supports it.

Here's a rough look at your print size limits given the amount of data your camera can handle. These numbers are rough—we've used a print resolution of 160 dpi, which we find a bit low for our tastes. You can certainly attempt bigger prints than those we've listed here, but you may start to notice pixilation along fine lines if you attempt to go much larger.

Resolution	dpi	Max. Print Size
1 Megapixel	1,280 by 960 dpi	6 by 8 inches
2 Megapixels	1,600 by 1,200 dpi	8 by 10 inches
3 Megapixels	2,048 by 1,536 dpi	10 by 13 inches

Sharpen Those Pictures



One of the crowning achievements in image-editing software is its ability to sharpen slightly blurred images by making pixel boundaries in images more pronounced—especially important for scanned photos, which often come out a bit blurry. Don't expect miracles, though. This technique won't make a blurry image crystal clear; it really works best for improving a good image, not fixing a bad one.

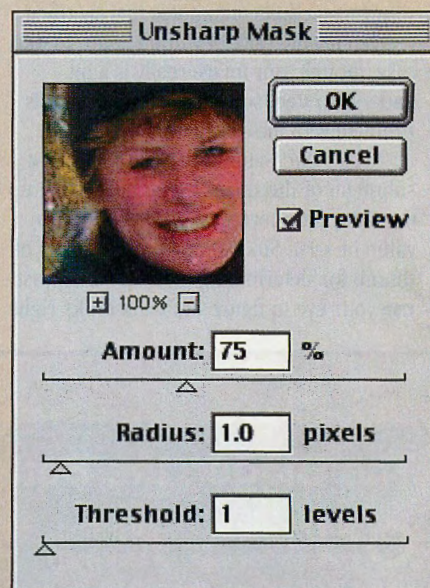
We suggest using Unsharp Mask instead of the other sharpening filters because it gives you more control over how much sharpness you can apply and in what ways. Don't let the name fool you; Unsharp Mask is a technique (taken from film compositing) for sharpening the edges in an image. Simply select Unsharp Mask from the Sharpen submenu of the Filter menu, and you'll see a dialog box pop up with a few settings and a preview. Here we chose to enter an Amount of 75 percent (the amount of contrast the filter adds), a Radius of 1.0 (the distance from the pixel that

the filter looks for information), and a Threshold of 1 (the amount of difference in color between pixels before you sharpen the image—a Threshold of 0 sharpens all pixels, ignoring any differences). For best results, take a subtle, not drastic, approach to choosing your values. Too much sharpening will make JPEG artifacts—and any other imperfections—more visible.

A few adjustments in Photoshop's Unsharp Mask dialog box can work wonders on details. Don't oversharpen, though, or you'll bring out imperfections, such as JPEG artifacts.

TIP By keeping the Threshold number low but increasing the Amount and Radius numbers to insanely high values, you can get some interesting posterization effects, including cool exaggeration and saturation of certain colors.

Sharpening can bring out fine details in an image, such as those in the net at left.



Picky about Paper

One thing you'll want to do in advance is stock up on paper for all those images your printer's going to start spewing out. The range of paper choices today lets you print anything from a quick-and-dirty proof, to a glossy enlargement, to a panoramic oversize print. Here's some general advice for buying paper.

- **Take the print-proof approach.** Buy cheap, low-grade photo paper (such as plain inkjet paper) for testing and printing one-offs, and preserve premium paper (such as photo-quality glossy film) for final prints. You'll save a little money that way.
- **Lean toward name brands.** Although it feels sort of like a dirty trick, the best paper for your printer usually comes from the same folks who made it. However, it doesn't hurt to try out some other

papers. The recently released Pictorico (<http://www.pictorico.com>) line of photo-quality paper—especially the Hi-Gloss White Film—works beautifully with several different photo printers. It's lightfast, too, so your pictures will last longer. Basically, the higher the grade of paper, the better the print. You can also choose between several finishes, such as matte, canvas, glossy, and silk, among others.

- **Make sure you use lightfast paper.** Some brand-new papers (combined with new inks) make prints that can last as long as silver-halide photos—at least 15 years (a few companies tout even longer lifespans). For more information on lightfastness and photo prints, visit the Wilhelm Imaging Research Web site (<http://www.wilhelm-research.com>).

Picking the Right Printer

If you haven't looked at inkjet printers in a few years, the quality and consistency of color you can get from a relatively inexpensive one these days will amaze you. Most decent photo-quality inkjet printers cost between \$300 and \$500 and are extremely easy to operate. While picking a printer is not a difficult feat, you should consider a few things before plunking down your credit card.

- **Resolution.** While resolution isn't everything, a higher number is better. This isn't a hard-and-fast rule, but a 1,200-dpi printer will outperform a 300-dpi one every time. For home printing, you should pick a printer with a resolution of 1,000 dpi or higher; beyond that, resolution plays a decreasingly important role.

- **Drop size.** This is the flip side of resolution. Drop size measures the smallest ink drop a printer can produce. Smaller dots mean a printer can handle greater detail and better color reproduction. Although this information isn't always easy to find in a printer's specs, a drop size in the single-digit picoliter range is a good place to be.
- **Inks.** You might not always have a choice in what inks come with a printer, but you should make sure they are quick-drying and lightfast (which means prints won't fade as quickly in direct light). Although the printer's specs should comment on these issues, they may not—in that case, you should talk to a sales representative for answers.

- **Number of ink colors.** More is generally better. Some printers use five colors (cyan, light cyan, magenta, light magenta, and yellow) plus black to make prints, giving them a larger potential color palette to draw from than a printer with just three colors (cyan, magenta, and yellow) plus black. Also, a good photo printer should have the ability to use black ink for darker areas, which lets it do double-duty as a text printer.
- **Print samples.** Check out several print samples created with the highest-quality settings on the best paper available—preferably ones you actually witness coming out of the printer. It's important to see what the printer can do before you lay down your hard-earned scratch.

Keeping Your Printer in Prime Shape

Although photo printers can produce beautiful work over the course of several consecutive prints, you're more likely to get killer results if you follow a killer maintenance routine. Here are five things you should do to make your printer function at the highest level.

1. **Treat photo paper like fine wine.** Keep it in a cool, dry, dark place. Moisture can ruin photo paper quickly, and you're better off if you don't expose it to the elements in the first place. A resealable bag and a dark indoor cabinet should do the trick.

2. **Keep your printer clean.** To avoid any banding, smudging, or other problems caused by a dirty printhead or paper path, clean your machine between prints. This usually means cleaning the printheads and running a cleaning sheet through the printer—methods can vary from one device to another, so check your documentation for more info.

3. **Use fresh media.** Although the effects are minimal, inks do age, so if you're outputting high-quality prints, start with a fresh cartridge. You're also less likely to run out of ink that way.

4. **Look, but don't touch.** By touching the surface of some photo-quality glossy films, you'll leave some of your skin's oils on the paper, which may keep the ink from setting. Your best bet is to treat each sheet like a vinyl album (for those of you who remember what that is) and handle it only by the edges.

5. **Give it time.** When your prints come out of the printer, lay them face up in a still, dust-free area to dry completely. Although prints may look dry when they emerge, it doesn't hurt to give them a little extra time.

In the Driver's Seat

Once you've chosen your printer and paper type, there's one other printer-related item to which you need to pay attention—how you set up your

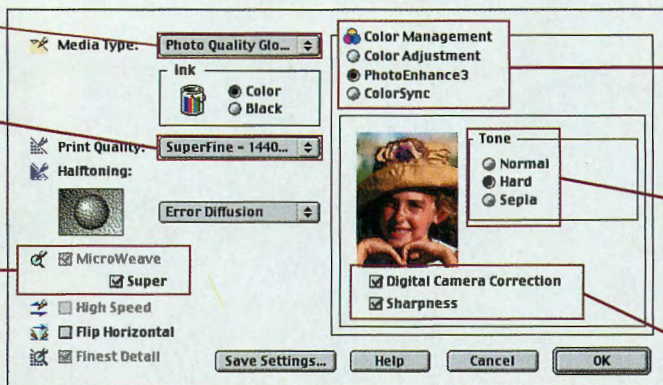
printer's driver software. Getting the driver settings right can make the difference between a good print and a great one. Here's a look at the Epson Stylus Photo EX printer's driver

interface. Although you'll need to check the manual that came with your printer for specifics, you should get a good idea of what settings to look for based on this example.

This is where you choose the paper type you will be using.

This pop-up menu controls the print resolution.

This little item—Super MicroWeave—usually stays unchecked unless you tell the printer you're using premium glossy paper. However, if you check this box, the feature will get rid of banding and make prints look even better—but it also increases the print time.



Epson's driver lets you tweak the color levels in the driver itself, but we chose to use Epson's PhotoEnhance3 color management.

These three choices let you bump up the contrast or simulate old sepia-tone prints.

A final bit of postprocessing—these two controls add extra sharpness and correction for some of the artifacts introduced by digital cameras.

Boss-Proof your Mac



FIND ANARCHIE
3.7 Installer,
Cache Killer Pro
II, Funk Monkey
1.1, HideFolders
2.2, MacWasher
1.0.2,
QuickEncrypt
3.0.3, The Eraser
Pro 2.6.0, The
MacLocksmith
2.4.0, and
Transmit 1.5.1
on The Disc.



Discuss boss
protection
for your Mac at
[http://www.
macaddict.com
/debate](http://www.macaddict.com/debate).

Keep your personal files,
email, and Web surfing safe
from prying eyes

by Todd Stauffer

illustration by
Robert Rose



Security is the Spice of Life

If you have a Mac at work, you've got a greater incentive to keep your job than the average Windows-using employee. Fair enough.

But having that Mac on your desk might have its negative side, too. After all, you're more likely to want to run your fingers over its keyboard and fire it up for an Internet joyride. Or you might use its advanced graphics capabilities to lay out an anarchist newsletter after hours. And let's face it: We all send the occasional personal email from our work accounts.

The problem: Even if you've propped up your Mac with your favorite stuffed animals and plastered your personal wallpaper on the desktop, that Mac ain't really yours. It's the Boss's—and the time you spend on that computer belongs to the company. That means your supervisors have the right to scrutinize everything on your Mac—even the stuff that's going to embarrass you. Are you willing to take the risk that your boss (or the evil subjects in the IT department) won't start lurking through your hard drive looking for evidence of anti-productivity?

If you think you're completely safe, think again. Last December, the New York Times Company fired 23 employees for "inappropriate" use of email. Earlier in 1999, brokerage house Edward Jones fired 19 employees and disciplined 41 others for violating its email policy. And heck, we wonder if Bill Gates even uses email anymore after that little run-in with the Department of Justice.

Now how much would you pay for a little protection?

Fortunately, it won't cost much. You can use Mac OS 9, shareware tools, and the Internet to keep your personal stuff personal on your Mac, regardless of who owns it. Then, with some well-placed compliments directed toward your Boss, you'll be happily employed for a while to come.

Technically, your company can page through the files on your Mac at any time, no search warrant required, so the first step is to secure your files. The best way to do this is to use a program to encrypt them. Based on a password you create and some magic-like mathematics, an encryption program can garble a file beyond recognition. By entering the correct password, you can recover the file in full.

If you have Mac OS 9, you can encrypt files using the Apple File Security application that's included, free of charge. In addition, you can store the password in your Keychain so you can just double-click to open your file whenever your Keychain is unlocked. If the Keychain is locked, unauthorized users cannot access the file. The downside to Apple File Security is that you can't encrypt entire folders, only files.

To encrypt with Mac OS 9:

1. Drag the file you want to encrypt onto the Apple File Security icon, most likely located in the Security folder inside your Applications folder. (If you're a contextual-menu-type cat, you can instead Control-click the file's icon and choose Encrypt.)

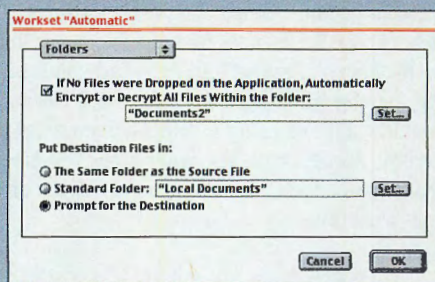
2. The computer will ask for a password, or "passphrase" (Apple's way of encouraging you to use longer passwords).

3. Enter your passphrase twice and click Encrypt—if you want to add this password to your Keychain, make sure Add To Keychain is selected in the dialog.

4. Now, if you managed to type your password correctly twice, you'll see a cute little gold key on the file's icon indicating that it's encrypted.

5. To decrypt the file, just double-click its icon (which will also launch the document) or drag it to the Apple File Security icon again. It will ask you for your passphrase unless your Keychain is already unlocked.

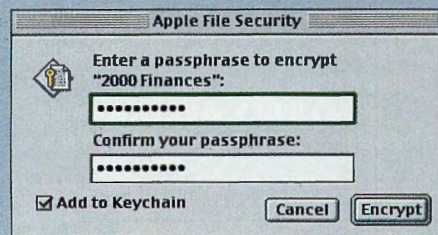
If you don't have Mac OS 9 installed or you want more power and the ability to encrypt entire folders, check out QuickEncrypt, a shareware solution from Dejal Userware in New Zealand (\$25, <http://www.dejal.co.nz>).



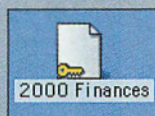
Here we've set QuickEncrypt to automatically encrypt all of the files in the Documents2 folder when you double-click the QuickEncrypt icon.

QuickEncrypt offers powerful encryption of files and folders. Beyond that, the program offers AppleScript integration and its own automating system of Worksets. These are great tools for boss-proofing your Mac because they allow you to automate many different tasks in QuickEncrypt. For instance, you can have the program automatically encrypt all files in a given folder (or only new files) at a specific time, and you can decide where and how files are stored once encrypted.

A cheaper solution is MacLocksmith (\$10, <http://yellowsoft.homepage.nu>). This basic drag-and-drop application offers an efficient way to encrypt an individual file or folder with a password, and it cleans up after itself by deleting the original file. Kremlin (\$30, <http://www.mach5.com>) is another good security program, featuring high-end 160-bit encryption. It also has nice integration with the Finder by adding its own menu to the menubar of your Mac as well as popping up different options in your Mac's contextual menus (which you can access with a Control-click). It'll even securely delete your unencrypted originals.



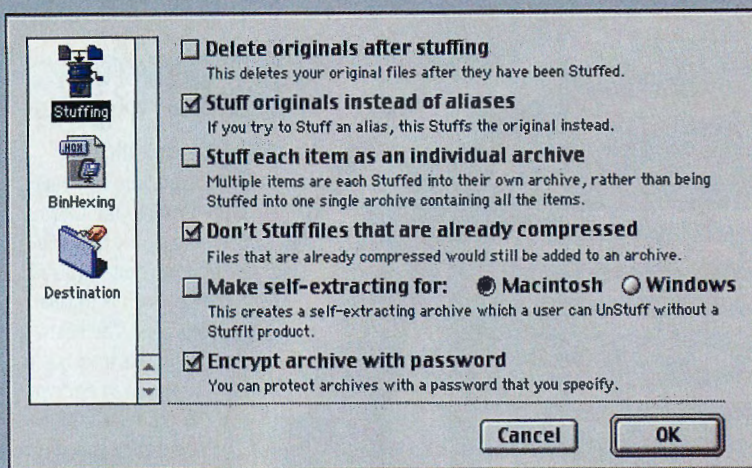
Using OS 9's file security feature in the encrypt dialog box, choose Add To Keychain if you'd like the file's password stored on your Keychain.



Lock it away and throw away the key... Once encrypted, Apple File Security adds a handy little reminder to the document's icon.

(continued on p44)

One utility that will encrypt—and that you might already have hanging out on your Mac—is Aladdin's DropStuff 5.x (\$30, <http://www.aladdinsys.com>). Simply double-click DropStuff, then choose Preferences from the File menu. Turn on the Encrypt Archive With Password option and the software will ask you for a password whenever you drag a file or folder to DropStuff to create an archive. As with Apple File Security, the resulting file is compressed, thus taking up less space on your hard drive.



If you'd like DropStuff to automatically encrypt files as it stuffs them, just turn on the Encrypt option in its Preferences.

Hide and Seek

In addition to securing your files, you'll want to hide them. In fact, you may elect to hide folders instead of encrypting them, since encrypting can be such a bore. Plus, the bulk of your files probably aren't *really* sensitive. You're just trying to hide games, game files, game levels, game editors, and articles about games, right? (We know our readers.)

So, here you are with all these games, er, documents to hide. What to do? Hide the whole blasted folder.

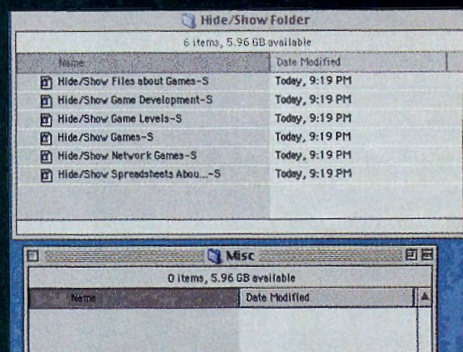
Actually, there's an upside and a downside to hiding files. The upside is that it's pretty easy to do, even without having to buy an expensive program—any Mac file or folder has a hidden resource that you can toggle with ResEdit or with a simple shareware program. The downside: It's also easy to defeat. Just check out your startup drive in BBEdit's Open dialog box, for instance, and you'll see all sorts of folders and files "hidden" in the Finder. Unfortunately, savvy (or really paranoid) bosses and IT departments can easily find hidden folders, and we haven't really seen a utility that gets around that.

Hiding a folder, however, will defeat the casual (or stupid) intruder. The easy way is to

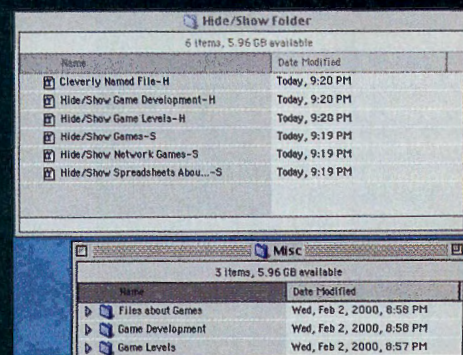
use a program to hack and hide your folders for you. Hide Folders 2.2 (\$5, <http://members.aol.com/cyclonworx>), for instance, lets you easily hide folders, files, or aliases. Simply drag-and-drop a folder to the Hide Folders icon and enter a password. Now, the folder becomes hidden from view in the Finder and Hide Folders creates a new Hide/Show file that you can store elsewhere on your drive. (Just don't store the Hide/Show file in the folder you're planning to hide, as you'd create a bizarre paradox that the writers of *Star Trek* wouldn't even touch.) The Hide/Show file is now a toggle switch. Whenever you want to access the folder again, just double-click the toggle file. The program will ask you for your password in order to make the folder reappear. To hide the folder again, double-click its toggle file.

Want other options? The freeware Funk Monkey (<http://www.pyroactive.com>) simply has a name too good to pass up, and it offers a great interface for hiding folders and files, and screwing with some of your system files, if you're into that. Unfortunately the program

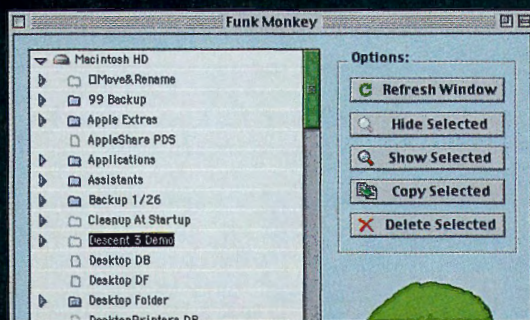
doesn't offer any password protection. That means you'll have to bury your Funk Monkey program in layers of subfolders and hope no one is clever enough to come across it.



Games? What games? With the Hide Folders shareware, each file shown in the upper window represents a folder that is hidden from view in the lower window. The S means Show, so when you double-click one of these toggle files, the file will now appear in that lower window.



If you double-click the associated Hide/Show file and enter the correct password, your folder will appear. Note, also, that you can rename the files if you don't want to give away their function.



In Funk Monkey, the interface makes it a snap to hide and show files—just select a file or folder, click Hide Selected, and the file or folder's icon grays out to show that it is now invisible in the Finder.

Burn the Remains

When you toss a document away and empty the Trash, it's gone, right? Actually...not quite. The Finder simply stops tracking the file in its databases, meaning your Mac could overwrite the file at any moment. That doesn't mean it necessarily has overwritten the file yet. Using Norton Utilities or other "undelete" programs, it's possible to recover the file—and that's exactly the sort of thing you don't want the IT department to stay up late at night doing on your Mac.

The solution is a secure-delete utility, which will overwrite the file immediately, making it unrecoverable. One program to consider is The Eraser Pro (\$25, <http://yellowsoft.homepage.nu>), which not only securely deletes files, but also clears out browser cache files (see "Scramble Your Calls," p47).

If you're really serious about this stuff, you need Kremlin (see "Security is the Spice of Life," p43). Actually, Kremlin is both an encryption tool and a secure-delete utility—which makes sense, since you don't want the unencrypted, deleted versions of your files sitting there, naked and recoverable on your drive. Kremlin uses 160-bit encryption and

contains certain algorithms that makes it illegal to export the program to other countries (so you'll have to promise, on a stack of Web windows, that you're a U.S. or Canadian citizen before you can download it).

If you're not super-serious about secure-deleting files but you want to try it, check out Greg Koenig's freeware File Fire, which you'll find in popular Mac download libraries like

<http://www.macdownload.com>. Greg does not require any payment for this program, which he wrote when he was 13 years old. He simply asks that you don't sue him. Drag a file to the icon and it's deleted and overwritten with 1s, 0s, and combinations thereof to make it completely unrecoverable.



Once you've got it in your sticky little fingers, Kremlin lets you both encrypt files and securely delete files. Yep, that's two utilities in one.

Before you download Kremlin for the Mac, you must answer the following questions.

Is the requesting computer located within the United States or Canada?

- ☒ Yes
☐ No

Do you acknowledge affirmatively that you understand that Kremlin Domestic Version is subject to export controls under the Export Administration Act and that you cannot export or re-export the software without a license?

- ☒ Yes
☐ No

Do you certify that you are not on any of the United States Government's lists of export-precluded parties or otherwise ineligible to receive this transfer of cryptographic software subject to export controls under the Export Administration Act?

- ☒ Yes
☐ No

[Download Kremlin](#) [Reset](#)

Just to download Kremlin you've got to pass through a security checkpoint that rivals those of the real Kremlin.

Hole Up in a Safe House

The best way to keep your files from falling into the wrong hands is to store them somewhere those hands can't get at them. If you happen to have a fast Internet connection, store your personal files off-site. Now, if you ever have to skedaddle with a security guard poking you in the ribs, you don't have to worry about rescuing your files because you can easily access them off-site.

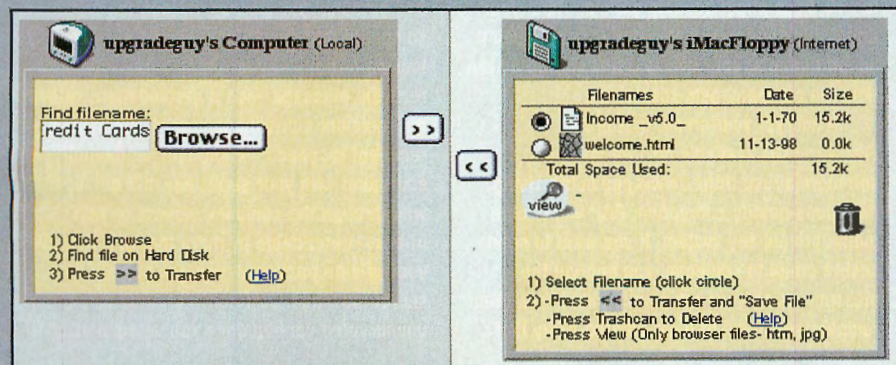
The best and easiest way to do this is to use Mac OS 9 and Apple's iDisk. Just sign up for

iTools (<http://itools.mac.com/itoolsmain.html>), click the iDisk tab, and follow the instructions. Now, as long as you're at a computer running Mac OS 9, you can mount the iDisk disk icon on your desktop and use it like any other AppleShare network drive. When you put the iDisk away, no one else can access it without your password.

There are other ways as well. One is through <http://www.imacfloppy.com>, the previously undisputed champion of quickie

online transfer. Sign onto the site and you get 3MB of storage for free. Those three megs are stored behind a secure user name and password, and the interface is simple to use—just copy files from your hard drive to the server.

For more storage space, talk to your personal ISP. You should be able to cajole it into offering you a little personal FTP space for your files—AOL offers 2MB per screen name (shared with your Web server files, if you have any), while EarthLink gives each member a full 5MB to play with. Then, simply download an FTP client like Fetch (\$25, <http://www.dartmouth.edu/pages/softdev/fetch.html>), Anarchie (\$35, <http://www.stairways.com>), or Transmit (\$25, <http://www.panic.com>) to move files to the FTP server. Instantly, the FTP client will transfer files to an off-site location in a place the boss can't get at them.

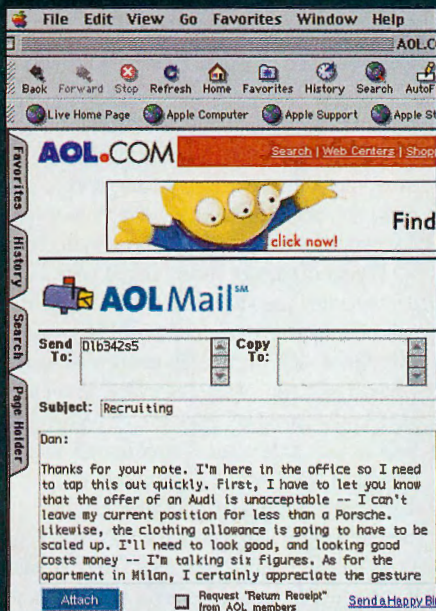


IF YOU USE imacfloppy.com, simply select a file on your local drive and send it to the Web server for safe keeping.

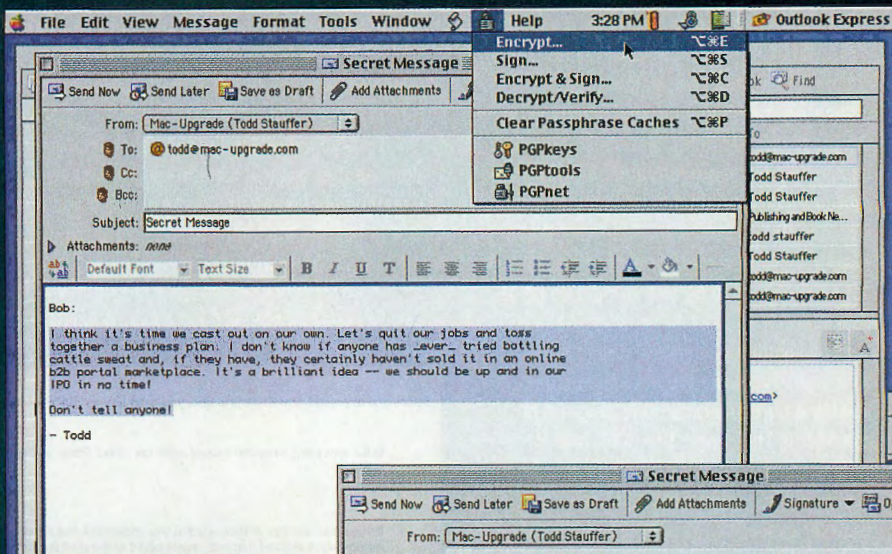
the E-coast is Clear

We know entirely too many friends and colleagues who send their personal missives through their handy little MyBigCompany.com account, giving almost no thought to the fact that those emails, no matter how sensitive, are not private. Court case after court case has let companies dig as deep into personal email as they like, regardless of just how personal it is. The solution: Get a Web-based account.

Excite, Yahoo and even Apple's iTools offer accounts you can access directly through a Web browser, keeping things nice and private. Log out of the site when you're done, and prying eyes won't be able to dig into your personal email. Also, services like AOL, CompuServe and others will let you access your mail through their Web pages, so you can continue to use that personal account at work without fear of reprisal. Or if you have a regular POP account, you can access your mail online at <http://www.mailstart.com>. Best of all, snooping bosses can't use the Back button or check the history in your browser to read the emails—the mail server requires a password to display your messages again. Enterprising Mac experts might be able to page through your cache files and read emails, though, so don't forget to clean out your cache (see "Scramble Your Calls," p47).



If you've already got an AOL account at home, you can keep using it for your personal email through the AOL Web site. That way you don't need to put private communiqués on your corporate mail servers.

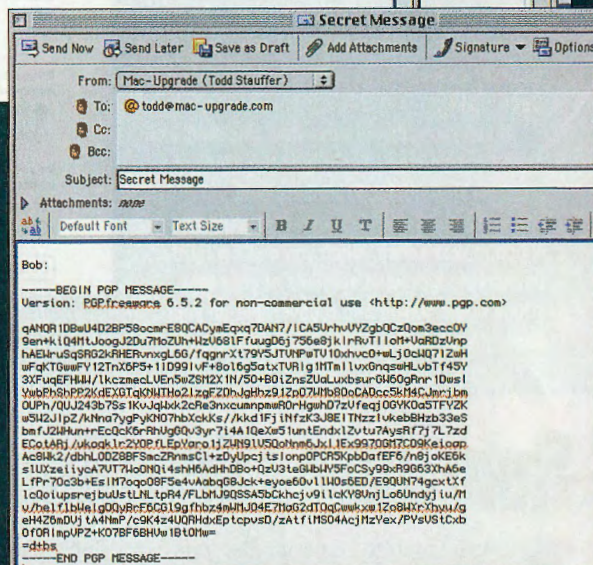


If you absolutely have to send personal email through your corporate servers, the first step is to make sure you're not leaving a copy of your incoming messages on the server. This is an imperfect solution—your company may back up its servers or mirror all traffic onto another drive anyway—but it's a start.

Every email has an option to leave copies of emails on the server, though the location of the option varies. In Outlook Express 5, go to Tools and select Accounts. Double-click the account name, click the Options tab, and make sure **Save A Copy Of Each Email On The Server** is unchecked. In Eudora, go to the Special menu and select Settings. Under Settings, go to the Checking Mail window and make sure that **Leave On Server For [blank] Days** is not checked.

If you want more security, one solution is to encrypt your messages. But just as Big Brother would get upset if you moved out of the way of the TV, Boss might become curious about your email if it's encrypted. Hopefully, though, you'll be long gone at your own pre-IPO startup by the time the company gets suspicious.

To encrypt your email, first grab FreewarePGP, available for free for non-commercial use (<http://www.pgp.com>). Using munitions-quality encryption, PGP works on a public/private key system. If you want to send secure email to someone, you encrypt the message using your recipient's public key. (Your recipient will need to have created a key that



PGP is a nice little Mac program that walks you through making and publishing your public key, then helps you encrypt files, attachments, or email messages. Once encrypted and sent, no one will be able to read the message encrypted in PGP except the recipient.

he/she makes public to you using PGP software.) Once the message is encrypted, only that person can read it with his/her private key and personal passphrase. In fact, the process is so secure that even highly skilled hackers looking directly at your email server couldn't read the message—it's a garbled mess without the recipient's private password. When your recipient responds, he/she can send email encrypted with your public key. It'll get all the way through the company servers to your in-box—unreadable by mere mortals. Then, with your private passphrase, you can decode the secret message. Just don't forget to delete the unencrypted version once you've memorized it!

Scramble your Calls

So what about that Web browser you've been using to scope out new jobs? A snooping boss combing through your browser's history and cache could pull up some items you'd prefer not to share, whether it's visits to the Internet Movie Database, MP3 World, or something even more nefarious, such as Whitehouse.com (tsk, tsk). Fortunately there are great tools to help you cover your tracks.

One we've already mentioned, The Eraser Pro, will clear your cache, but you must select the folder where your browser's cache resides. Then the software occasionally checks that folder, usually for files that are a certain number of hours, days or weeks old.

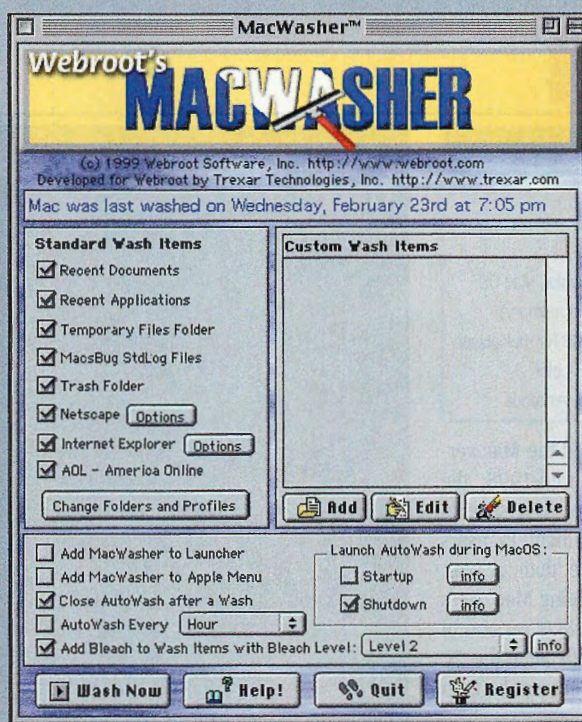
For a more automated approach, MacWasher (\$30, <http://www.webroot.com>) is a great utility, designed specifically to cover your tracks. You can choose to have it check browser elements and beyond—Recent Documents, Recent Folders, even temporary folders and files created by the likes of Microsoft Word. You can set MacWasher on a schedule to automatically find cache files, history files, cookies and other secret stuff; it then deletes them from all the nooks and crannies where these files hide. In fact, MacWasher includes a secure-delete function

(called bleach), which overwrites deleted cache and history files with 1s and 0s. MacWasher even passed the toughest tasks we came up

with—deleting AutoType favorites (you know, when the browser fills in “macaddict.com” after you've typed a few letters) and the

Download Manager in Internet Explorer.

For less complete, but cheaper, solutions, try either Cache Killer Pro (\$14, <http://www.cachekiller.com>) or the freeware Kill All Caches, an AppleScript available from popular download libraries like <http://www.macdownload.com>. These tools only clean out the browser cache, not the Recent Folders, cookies, history, and so on. Still, they're handy to have if you don't want to shell out for MacWasher and your boss is getting out of control.



Using MacWasher, select what you'd like to wash, how often, and with what sort of vim and vigor. You can even simulate a wash and get a listing of what would be deleted if you actually ran the program.

Out in a Hurry

It doesn't matter how great a person you are—eventually, one day, you may get fired. While it's never happened to any of us personally, we have “friends” who've been there. And if there's anything that happens when you get summarily dismissed from a position, it's people getting antsy about what you take with you.

Most of the time you'll get at least 10 minutes with your Mac before you are ushered out the door, so it's important to know exactly what you should take with you. Here are a few easy steps for when the big one hits:

PRACTICE SAFE COMPUTING. Follow the advice in this story to keep personal stuff off your corporate Mac in the first place.

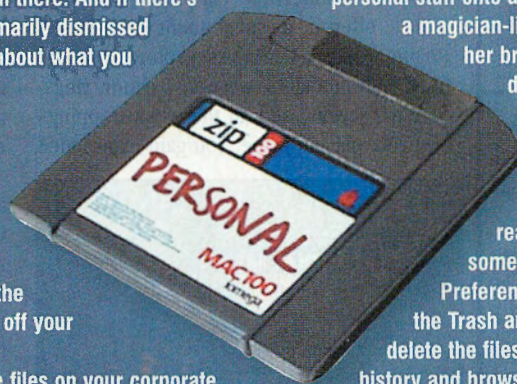
PUT A NAMETAG ON IT. If you do store files on your corporate Mac, either keep them in one place (in a hierarchy of subfolders, for instance) or give them a particular Label (when you're in the Finder, go to File and choose Label). Using Sherlock, you can search by that Label to round them all up and quickly move them to a Zip.

BE PREPARED. A boss recently gave a friend 10 minutes at her

desk and told her not to touch the computer on the way to the bread line. With her boss's back turned, she was able to dump some personal stuff onto a Zip that happened to be in the Zip drive—a magician-like swipe of the hand and the disk was in her briefcase. The lesson here is always have a disk or some Web space ready to which you can copy your stuff.

WIPE IT CLEAN. If you've got MacWasher, run it quickly to clean everything off the hard drive. If you're in a real hurry—and you're not above causing some non-fatal havoc—just drag your Preferences folder (inside the System Folder) to the Trash and delete it. (Using a program to secure-delete the files would be even better.) Your favorites, history and browser cache are all stored in your Preferences, so they'll be killed off quickly.

DON'T FORGET THE MAIL. If there's writing on the wall, check your email program and see how your saved mail is stored. In most programs, you can quickly grab your personal folders or mail database and back them up to a Zip.



reviews

How about some iMacs in blood red or pumpkin?

Diablo II

fun & games

COMPANY: Blizzard Entertainment

CONTACT: 949-955-1380, <http://www.blizzard.com>

PRICE: \$59.95 (SRP)

REQUIREMENTS: G3 processor or faster, Mac OS 8.1 or later, 64MB of RAM (plus virtual memory), 650MB of free hard disk space (950MB for multiplayer mode), 4X CD-ROM, 800 by 600 256-color display, 28.8-kbps modem for multiplayer mode

When Blizzard released the Mac version of Diablo in mid-1998, the move left Mac users in a state of conflict. While the game was brilliant, PC users had been playing it for more than a year. Blizzard has finally stopped treating Mac users like third-class citizens. With a Mac version of Diablo II out less than a month after the PC release, we're now safely entrenched in second-class status.

That's about the only cheap joke we can make at Blizzard's expense. Diablo's sequel, Diablo II, is a vastly impressive, absorbing game that has already caused three nights of total sleep deprivation for this reviewer. The game fixes many of the first Diablo's flaws, resulting in a brilliant, deep playing experience.

Tips and Tricks

- ☠ Assign the scroll of the town portal as one of your F-key skills. That way you have easy access without sacrificing a space in your belt.
- ☠ Hold down the Option key and just run around after you've completed a level to find all the neat items you missed during regular play.
- ☠ If you've got a slow machine (slower than a G4/500), run around in circles when you enter a new level to give the drive time to quit churning; you may run into a terrible lag when you switch levels.
- ☠ If you quit the game with a loaded corpse in the field, it'll appear in the town when you restart. That's usually a much, much easier way to get your stuff back.



AH, THIS IS THE LIFE—letting my undead servants do the hard fighting.

As in the original Diablo, the game engine is a real-time, multiplayer update on the character-based classic Rogue. (If you're unfamiliar with Rogue, Casady & Greene's Mission Thunderbolt [<http://www.casadyg.com>] offered a subsequent turn-based Rogue variation). Players explore a world filled with monsters, weapons, armor, rings, potions, scrolls, and all the usual trappings of a role-playing game. You gain experience

by killing monsters; kill enough, and you go up a level and become more powerful. Enchantments empower some of the weapons, armor, and other items, increasing the character's prowess. Diablo divides the world into "safe" areas where players can relax, recuperate, sell off excess weaponry, and ask locals about the plot; and "wilderness" areas, containing a rich variety of monsters out for blood.

If you ever played the first Diablo, you'll appreciate the minor tweaks in this version. Gone are the original game's frequently fruitless conversations—instead, clickable exclamation points appear over the heads of nonplayer characters to indicate when they have some message to deliver. Diablo's world has expanded vastly from the original game's meager 16 levels, and now includes a large number of enormous outdoor levels. The first game loaded new levels very slowly; now, switching levels (particularly in the outdoor areas) causes little delay. The five character classes (see "What Can I Do?", p49) offer greater distinctions than the original game's three classes, and now require



SHRINES IN DIABLO II finally have informative names—no more of the original Diablo's Glittering Shrine enigma.



FREAKIN' AWESOME!
The most valuable products, the coolest gizmos.



SPIFFY
A solid offering. Overall a good investment.



YEAH, WHATEVER
Neither recommended nor rejected. Some might like this, but we weren't impressed.



BLECH!
We want the time we spent testing this back.



TALK TO US at
<http://www.macaddict.com/debate>.

significantly different playing styles. Shrines are now labeled by their function, eliminating a lot of guesswork.

Diablo offers beautiful art, marred by occasional graphic glitches. For example, the Amazon's bulky leather armor seems ineffective, as it fails to extend below her waist. Flickering



WAIT A MINUTE—THESE SHADOWS DON'T ADD UP.
Should the flame be casting a shadow, or should we?

torches create gorgeous, though wildly unrealistic, guttering shadows. However, the exquisitely rendered shadows of spires are well worth seeing, and it's not unusual to see neophyte players running around madly in circles for no other purpose than the pure eye-candy enjoyment of watching them. The game generally handles the large cast of characters and their interactions well, again with a few inconsistencies. Kashya, the guard captain in the well-named Rogue encampment, sometimes forgets her usual gushing admiration of Amazons with the occasional acerbic remark. And from time to time, characters get caught in corners, causing an unpleasant shaking effect onscreen.

We tested the game on a G4/500 and on an iBook, which let us see how Diablo would play on a machine that *just* met the processor and memory requirements (and that let us play on

the road). With the iBook, we occasionally encountered ferocious lag. While rarely fatal, this phenomenon disconcerted us. The software rendering—required by the iBook—was outstanding, almost indistinguishable (with the exception of a few perspective effects) from the graphics on the G4.

Quibbles aside, Diablo II is a brilliant game. Unless you've decided Unreal Tournament is the first, last, and only game you'll ever play, you should get your hands on this one.

—Ian Sammis

good news: Strong role-playing game. Weaknesses of first version addressed. **bad news:** Dead bosses recover, causing continuity problems.



www.seemebuyme.com/ma1001

What Can I Do?

Diablo II's five character classes appeal to different types of players. Here's a quick guide to choosing the one that best suits your style.

THE BARBARIAN

Best at: Bashing stuff until it's dead.

Basic attitude: Thag smash!!!

Worst at: Casting spells (shouting and scaring away monsters is about it).

Use if: Your idea of strategy is to wade into a group of opponents and just start hitting them.



OH NO! WHAT DID THAG the barbarian break now?

THE PALADIN

Best at: Making an entire party more powerful at once with aura-type spells.

Basic attitude: Holler than thou.

Worst at: Long-distance attacks.

Use if: You're one of these annoyingly helpful types who want to aid the entire party.



SHEESH—THEY must've found this guy at Good Guys R Us.

THE SORCERESS

Best at: Blasting her opponents into smithereens (until her mana runs out).

Basic attitude: Goddess or wimp, depending upon the amount of mana she has.

Worst at: Anything at all, once she's out of mana.

Use if: You want to destroy your opponents from afar.



GUESS WHO'S GOT all those great spells from the first game!

THE AMAZON

Best at: Shooting arrows with various enchantments.

Basic attitude: Speed beats strength.

Worst at: Armoring her legs.

Use if: You can't decide between the barbarian, the paladin, and the sorceress.



I'M TOO SEXY FOR my armor, too sexy for my armor.

THE NECROMANCER

Best at: Raising an army of the undead to do his fighting for him.

Basic attitude: Skeletons, forward! I'll be hiding in this corner.

Worst at: Convincing anyone that he's a good guy.

Use if: You've always wanted an army of undead minions.



I RAISE THE DEAD, but it's not like I'm evil or anything!

in review

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The Sims

fun & games

COMPANY: Aspyr Media

CONTACT: 888-212-7797 or 512-708-8100,

<http://www.aspyr.com>

PRICE: \$2,495 (SRP)

REQUIREMENTS: iMac, PowerBook G3, PowerMac G3 or G4, Mac OS 8.1 or later, 64MB of RAM (96MB recommended), 2MB of VRAM (4MB recommended), 350MB of free hard disk space, 800 by 600 color display, 8X CD-ROM (16X recommended)



The Sims may well be a parent or significant other's worst nightmare. That's because the latest PC port from Aspyr is so freakin' fun that it'll have you shunning your real life (and the people in it) in favor of the one you've created onscreen. And before you ask how you can possibly have fun with a game that lacks Redeemers, smart bombs, or blood-and-guts combat, believe us—you'll be just as into your Sims as you are into your BFGs.

In *The Sims*, you create a household by choosing a premade family or building your own from scratch. *MacAddict* households included a basic nuclear family, a steamy bachelor pad, a lesbian love hut, and a cult of Scientologists. You determine family members' appearance, neatness, niceness—even their Zodiac sign. Your Sims act according to the personality traits you assign them—if they rate low on the neatness scale, for example, they live like pigs.

Once you've created family members, you must buy or build a house in the Sim neighborhood and start filling it up with essentials such as showers, refrigerators, sinks, beds, pink flamingos, and so on. To pay for these items, your Sims must check the paper and get a job. You become responsible for everything from getting them to work or school on time to making sure they get to a toilet when nature calls. But before you get *too* concerned (or excited), know *The Sims* blurs out all nudity like a narc's face on *60 Minutes*.

The game doesn't feature the most beautifully rendered or textured characters, but it doesn't need to. Besides, some of the graphical and audio details are just plain cool. For instance, if your Sims are watching TV, they can opt for several genres of programming, including romance, action, and horror—the TV screen and the sounds will switch accordingly, depending upon what they choose.

EATING DINNER TOGETHER serves two purposes: Sims satisfy their hunger and talk to each other at the same time.



OUR SIMS ARE VERY BASHFUL. They don't like us to see them bathe.

Our So-Called Sims

People say that pets tend to take on their owners' personalities, and we're wondering if one could say the same of Sims. We asked members of the *MacAddict* staff to share a little bit about their Sims. What they revealed could quite possibly be a psychologist's dream.

IAN SAMMIS, ASSOCIATE EDITOR

Sims' Names: Cultie, Theo, and Vanessa Communer.

The saddest thing that has happened: The fourth member of the cult, Bob, died tragically. We believe he took his own life—he wasn't happy.

The biggest problem they suffer from: They're way short on comfort and fun.

The coolest thing you built for them: A living room complete with zebra-striped sofa and Greek columns.

On a scale of 1 to 10, how much you relate to your Sims: About 1—I like my comforts quite a bit!

CHRIS IMLAY, ASSOCIATE ART DIRECTOR

Sims' Names: Tristin and Jane Shaught.

The weirdest thing that has happened: They had a baby.

The saddest thing that has happened: They had a baby.

The biggest problem they suffer from: A baby.

The cruelest thing you've done to them: Let them have a baby.

On a scale of 1 to 10, how much you relate to your Sims: 2.



DAVE ROSS, ART DIRECTOR

Sim's Name: Jerk is what I call him.

Weirdest thing that has happened: About a second after his lady friend left his house, she called to say he never invites her over. Women!

The saddest thing that has happened: He cries and drinks all the time.

The best thing you bought: The cyberviewer. I think he's watching porn.

On a scale of 1 to 10, how much you relate to your Sim: Way too much to really wanna think about it, thank you.

GATHY LU, FEATURES EDITOR

Sims' Names: Greg and Marsha Brady; Jonathan and Bella Girardelli.

The weirdest thing that has happened: Jonathan successfully proposed to a married woman, who stayed friends with her first husband (I don't even think they divorced!).

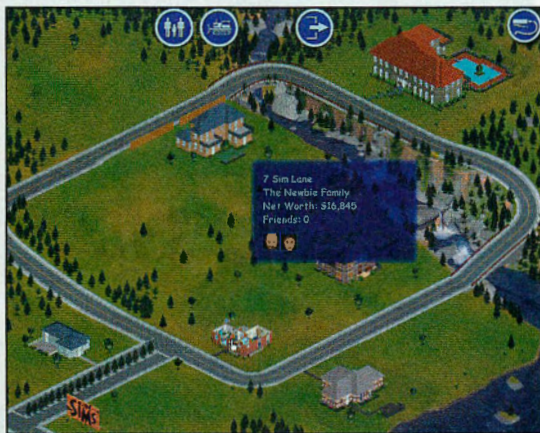
The cruelest thing you've done: I brutalized and killed their neighbors.

On a scale of 1 to 10, how much you relate to your Sims:

0. I don't do incest or bigamy.



GET YOUR MOJO RISING! This is as far as it goes, though.



IT'S A BEAUTIFUL DAY in the neighborhood. Several houses are vacant, so you can move in more families.

You control one Sim at a time (the others will go about their business in the meantime), but you can control any Sims in the neighborhood. The trick is to balance your family's everyday needs. This includes everything from making sure they have enough money and food, to keeping their levels of fun, energy, and comfort high. A mood bar gauges each Sim, so if you note that little Jimmy has a low fun level, you may want to let him watch cartoons. If you ignore your Sims' needs for positive social interaction, you might end up with, say, a mother and father who refuse to sleep in the same bed.

Do your job, and your Sims will prosper by getting promotions and having better relationships. If you let them go to crack-house hell, though, you're in for some trouble: Fires have been known to burn down houses, and we, um, *hear* that your kids can even get sent to military school if you neglect them. And what would life be without a little lovin'? Yes, your Sims do get intimate with each other—they even get married and have children.

One minor negative—we found placing furniture and objects a bit tricky. And while we're on a mild whine-fest, we should also mention the game's Roseanne Barr-like appetite: The box claims you only need 64MB of RAM, but you really should allot at least 100MB. On our G3 400MHz Mac with 128MB of RAM, the game only crashed once, although we assigned it a full 110,000K of memory.

Before you ask about the boredom factor, remember that sometimes watching other people do the everyday things (eating, peeing, going to work) provides the most entertainment. And let's be honest: Sometimes it's better than having to face up to our own pathetic lives.—Cathy Lu

good news: Hugely fun. Hugely addictive. A game for everyone.
bad news: Positioning furniture is difficult. System requirements are enormous.



www.seembebuyme.com/ma1003



IT'S LIKE A MOOD RING, only better. The mood bar tells you exactly how your Sim is feeling.

WHEN YOU HAVE THE MOOLAH, you can go on a shopping spree and choose things like a new plasma TV. It's like shopping at IKEA—without the lines.



Soma Plasma TV \$3,500
Perfect focus... Perfect image uniformity... Perfect entertainment... Soma Consumer Electronics takes the "plasma phenomenon" to a brave new level in this elegant technology statement. With its incredible image quality, unique form and super thin, Flat perspective screen, the Soma plasma TV is the undisputed leader in nanopixel technology.
Size: 6
Room: 2
Group Activity



WHEN YOU SELECT ANOTHER PERSON or an object, you get a menu of action choices.

The Art of Torture

Let us be clear: We don't advocate cruelty to virtual life forms, so all you Sims' rights advocates can just back off. Having said that, here's how to have a little fun with them.

1. Cause bladder problems. Sims love to pee, and when they can't, they get very, very upset. When they can't take it anymore, they simply go on the floor. Effective methods: Remove all toilets from the house, or put a toilet in an inaccessible place, like at the end of a long, narrow hallway.

2. Drown them. One of the coolest features of the game is the ability to build a pool. However, unlike humans, Sims can't climb in and out without a ladder. And when they don't have one, they drown. Effective method: Build a pool and add a ladder so Sims can get in. While they're in the pool, remove the ladder. They're goners in no time flat.

3. Starve them. Sims love food, and when they can't have it, they go nuts and eventually starve to death. Effective methods: Remove the refrigerator from the house. Run their money down to zero by buying extravagant statues and furniture. It takes a few days to finish them off via starvation, but don't despair: They *will* die.



WHEN YA GOTTA GO, ya gotta go.



REST IN PEACE. Betty mourns the death by drowning of her husband. We just can't imagine how that happened...

Deus Ex

fun & games

COMPANY: Aspyr Media

CONTACT: 888-212-7797 or 512-708-8100,
http://www.aspyr.com

PRICE: \$49.95 (SRP)

REQUIREMENTS: G3 266MHz or faster processor,
Mac OS 8.1 or later, 64MB of RAM (128MB recom-
mended), 150MB of free hard disk space, 4X CD-ROM,
ATI Rage Pro with 4MB of VRAM or equivalent or 3dfx-
based card (Rage128 or Voodoo3 recommended)

Mac gaming is so hot right now, you're probably having a crisis of choice. Well, if your Mac can hack it, Deus Ex is the most innovative adventure in years. The game comes from developer Warren Spector, who contributed to PC classics such as Ultima Underworld, Ultima VII: Serpent Isle, and System Shock. So it's no coincidence that Deus Ex plays like a combination of all three games and appeals to action fans, dungeon crawlers, and strategists alike.

Ow, Hardware Hungry

Deus Ex is a resource hog! Running the darned thing on a 400MHz G4 with 128MB of RAM and a PCI Voodoo3 card nearly caused a *China Syndrome*-type meltdown on our desktop. On a lesser system, even with low graphics, the game will chug. We had to ramp up virtual memory to 200MB just to get the game running the first time. The game (on both Mac and PC) inexplicably loads up the high-resolution, high-geometry models the first time you play, which makes the problem even more appalling. We expected system requirements similar to Unreal Tournament's since the two games share the same engine, but Deus Ex has far more complex architecture and textures, as well as RAM-munching voice-overs and music.

We recommend a couple of items for playing Deus Ex, though you don't absolutely need them: a three-button wheelmouse, a Voodoo graphics card (the game is optimized for Glide), and stereo speakers. If this seems excessive for a game, let us remind you—this is more than just a game.



YOU MAY NEED TO CONSULT your big book of extraterrestrial life forms, but we don't want to give too much plot away.

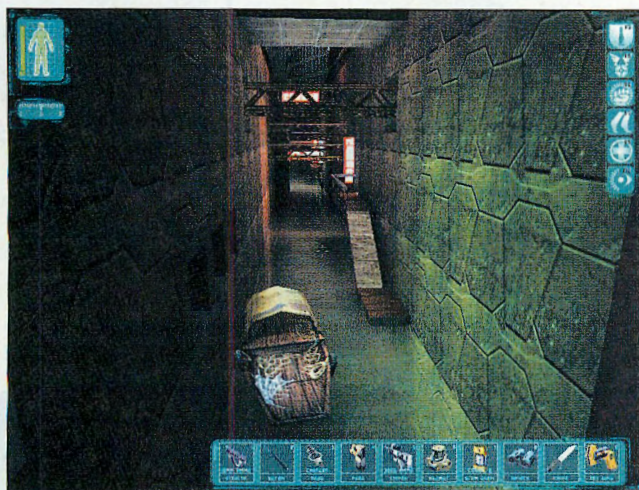
Graphically, Deus Ex brings the Unreal engine into more realistic territory. It eschews the spacescapes and alien worlds of Unreal for dark city streets and gleaming office buildings. The wide variety of animated and interactive characters differentiates this game from the Unreal series, but the extra textures used to paint this world sacrifice performance, chewing up copious amounts of memory and processor power. (See "Ow, Hardware Hungry," left, for more information.)

Deus Ex is not a shoot-'em-up. It offers plenty of action, but emphasizes logic and intrigue. Start with the Training mode, a slick piece of work that familiarizes you with weapons, explosives, medicine, and other essentials. Don't skip this mode, or you'll wander around in frustration until the first low-level security guard you bumble into shoots you down.

One problem we ran into as we wrote this review is that we didn't want to give



EXPLORING LABORATORIES REVEALS CLUES about the story and hints on how to create your own human preserves.



DEUS EX OFFERS VAST and mysterious environments.



THE SWORD IS POWERFUL, but your skills should match your arsenal.

away the plot. (For a glimpse into the first mission, though, see "Deus Ex: The First Five Minutes," below.) While not exactly great literature, it's a quantum leap from the rescue-Earth-from-space-fiends story lines we're used to. At the core of this puzzle is you—a technologically and biologically enhanced agent for UNATCO, an elite antiterrorist unit in a dystopian future world packed to the gills with bloodthirsty terrorists. Think *Blade Runner* meets *Die Hard*. Impressively, although the story incorporates interactive and movie-style sequences, you never get a feeling of disconnection. Also, the nonlinear plot allows you—in fact, often *requires* you—to move off into a separate branch of the adventure, only to find a clue that leads to yet a different mystery. This game is leagues and leagues deep.

Deus Ex lets you balance your hero's attributes to suit your style and skill level. You can earn skill levels in disciplines such as picking locks, hacking computers, swimming, shooting, explosives—even medicine. Each skill you learn has a dramatic effect on how and even where you play the game. A great swimmer can explore subaquatic areas inaccessible to, say, a brilliant marksman.

In the midst of a game, you can enhance and vary your cybernetic augmentations (properly described as nano-augmentors). From time to time you'll find augmentation canisters—the closest thing to straight-out power-ups—in strategic locations. You can nano-augment your vision to see in the dark; you can also upgrade that ability four times until eventually your character can see other characters right through walls.

Augmentations, combined with weapons and tools, give the Deus Ex world limitless combinations of events and outcomes.

Characters speak reasonably convincing dialogue in some of the best voice acting yet seen in a Mac (or PC) game. The sheer number of speaking characters is staggering, and you might want to take notes. Fortunately, the game keeps careful track of the objects you've picked up, the skills you've learned, and the conversations and clues you've witnessed. But this feature makes saved games huge—10MB to 20MB, in fact.

Quake and Unreal players who think they can barge into Deus Ex using their rocket-jump and mouselook skills are in for a nasty shock. Shot accuracy depends on factors other than where you point the cursor, and sniper mode may cause nausea.

The unforgiving control scheme makes this the perfect time to invest in a three-button wheelmouse. The ability to shoot, use and select items, and interact with people, all from one controller, makes the whole process a lot less painful.

In short, Deus Ex not only pushes the envelope, it kicks it out of an airplane window at 30,000 feet. But it also pushes your Mac's limits pretty hard, so it's not for the faint of pocket or for owners of less powerful machines.—Frank O'Connor

good news: The most detailed, absorbing, imaginative, and original use of 3D gaming yet seen on the Mac.
bad news: Bloated and corpulent in its need for fancy hardware.



www.seembuyme.com/ma1004

Deus Ex: The First Five Minutes

After watching the intro, get the crowbar near the other end of the dock—next to the wooden crates. Smash them to reveal the Binoculars and Lockpick. Go to the hole in the dock opposite the crates, down the stairs, and into the water, and smash the crates hanging under the dock. Here you'll find the Bioelectric Cell and the Multitool. Now go to the end of the dock and speak to Paul and Corporal Collins. Smash the crates and get the goodies before heading up the ramp onto the island.

Hide from sentries behind the first column. When the first one walks by, stun him twice to knock him out, then drag his body next to the other ones nearby (search them for equipment). Now head towards UNATCO head-

quarters (marked on the map), and talk to the tech sergeant to get the Comm Van code. Get everything you can from inside the Comm Van (a Medkit and Darts).

Once you're in the van, if you have hacking skills, you can access the security terminal. Otherwise, take the Datacube under the table for the log-in code. Select Camera 1 from the menu and open the door it controls. Log out and exit the Comm Van. You can now enter the open chamber in the ground and climb down. The ammo crate contains an EMP grenade. Make sure to get the next Multitool from the crate beside the van, then head back toward the statue. Congratulations...you're five minutes into one possible game scenario.

CanoScan N656U

hardware

COMPANY: Canon Computer Systems

CONTACT: 800-652-2666, <http://www.canoscan.com>

PRICE: \$129 (SRP)

REQUIREMENTS: PowerPC G3 or faster, Mac OS 8.5 or later, 32MB of RAM (64MB recommended), 20MB free hard disk space, built-in USB port (excludes add-on board)



THE CANON N656U IS FREAKIN' SMALL FOR A SCANNER, and it works well, too.

If you've been searching for an inexpensive, high-quality scanner that fits in your computer bag, look no further than the Canon CanoScan N656U. Featuring 42-bit color scanning at a maximum optical resolution of 600 by 1200 dpi, this USB flatbed scanner produces surprisingly great scans for such a compact device.

The elegant silver-and-gray case would make Apple's industrial design team proud, but looks aside, the most notable feature of the N656U is its size. This full-featured scanner weighs less than four pounds and has an ultrasmall footprint, with actual measurements of 10.1 inches wide by 14.7 inches deep by 1.3 inches tall. The scanning area is 8.5 by 11.7 inches, slightly bigger than a sheet of legal-size paper. The scanner's small size allows it to fit on even the most crowded desk. You can also pack the N656U in an iBook or PowerBook bag.

The N656U requires no power plug, since it obtains power from the USB bus itself. One cable provides both the connection and the power, but this means you must plug the scanner into either your computer's built-in USB port or a USB hub, not into the keyboard.

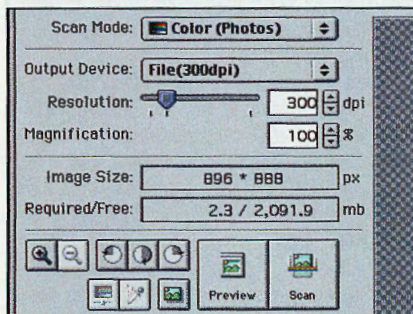
How well does the device work? Scanning a standard 4 by 6 color photo yielded wonderful results. When we used the default

settings, the color came out a little dark, but enabling the ColorSync option made our scans nice and bright, with acceptable color matching.

The speed of the scanner is directly proportional to the resolution setting you choose. A 72-dpi scan for use on a Web page or in an email takes just a few seconds, while a higher-dpi scan, up to 600, can take much longer. Scanning black-and-white documents for use with an OCR package went quickly and produced impressive results. We found the N656U's speed on par with that of other USB scanners we've tested, but of course it worked slower than FireWire or SCSI scanners, which have more bandwidth.

The requirements for the CanoScan N656U specifically state that it is not compatible with add-on USB boards. This means if you have an older Mac to which you have added a USB PCI card, then the N656U supposedly won't work. We tried the device on a Power Macintosh 7600 with a Belkin USB PCI card and had no problems using the scanner. It may not work with all other configurations, though—so if you use a USB add-on board, you should keep in mind that Canon probably won't provide any support for your configuration.

Given the enormous number of variables and conditions involved in image scanning, it can turn into an overwhelming task. Canon has made scanning easy and affordable, and wrapped it all up in a small, attractive case that would make a welcome addition to any computer desk or mobile setup. —*Buz Zoller*



CONTROL YOUR SCANS with the CanoScan Toolbox, which you can access through Photoshop or the CanoScan Toolbar.

good news: Lightweight. Small footprint. Outstanding software bundle. Powered by the USB bus, so it doesn't require external power.

bad news: Not officially compatible with USB add-on cards.



www.seemebuy.com/ma1009

Bundle Up

The N656U comes with an impressive set of software.

•CanoScan Toolbox

This piece of software does the actual scanning. It consists of a Photoshop plug-in and the stand-alone application. It also works with Photoshop plug-ins and filters to give you greater control over resolution and tweaking curves, as well as access to Photoshop-like rubber stamp and text tools.

•OmniPage 8 SE from Caere

(<http://www.caere.com>)

This OCR application allows you to scan text documents and convert them into editable text.

•PhotoBase from ArcSoft

(<http://www.arcsoft.com>)

PhotoBase is a full-featured media cataloging application that helps you easily organize all your scanned documents.

•PhotoStudio from ArcSoft

(<http://www.arcsoft.com>)

This complete image editing application even accepts Photoshop plug-ins.



WITH THE CANOSCAN TOOLBAR, scanning and image editing are just a click away.

Photo Easy DualCam Edition

hardware

COMPANY: Ixla

CONTACT: 203-730-8805 or 800-881-2966, <http://www.ixla.com>

PRICE: \$150 (SRP)

REQUIREMENTS: PowerPC or faster, Mac OS 8.6 or later, 64MB of RAM (with virtual memory on), 100MB of free hard disk space, available USB port



PHOTOGRAPH BY AARON LAUER

FOR PENNY-PINCHING PIXELS, the Photo Easy DualCam Edition for Mac is small, lightweight, and inexpensive, but with its low-quality images, it hardly feels like a bargain.

Say goodbye to film forever! You'll often hear this claim from manufacturers whose digital cameras cost hundreds of dollars. Ixla's Photo Easy DualCam Edition for Mac packs in a digital camera and helpful software for just \$150. To take advantage of this low price, however, you'll have to overlook the device's poor picture quality.

You pay for pixels in this market, and the DualCam provides just 307,200 of them, for a maximum resolution of 640 by 480—enough for onscreen display but not much more. In



THIS IMAGE WOULD, COULDA been beautiful, had the DualCam done a better job. The image lacks sharpness and gets even fuzzier at the edges.

contrast, new high-end digital cameras from the likes of Nikon and Canon contain sensors that can capture more than 10 times that number of pixels, producing large, high-resolution prints.

The camera's other specs look similarly underwhelming—a fixed-focus lens, no LCD panel for reviewing images, only 2MB of flash memory (and no removable memory storage), and minimal adjustment capabilities.

On the plus side, the small, lightweight camera easily fits in a shirt pocket. The built-in memory holds 16 images in Fine mode or 32 in Normal mode. The camera's control panel will likely send you to the manual for some explanation, but it's moderately easy to use.

How do the images *look*, though? Unfortunately, they look terrible. All the indoor and outdoor shots we took ended up extremely blurry, especially at the edges. The fixed-focus lens means closeup pictures will come out even blurrier. Most flash pictures overexpose, though the camera does offer some exposure compensation settings that help. However, you have to set the flash to either automatic or off, so you can't use it for fill flash (to illuminate shadows in bright settings). Also, sometimes the flash doesn't go off when you need it to.

We hooked the camera's included cable to a USB expansion card in a Power Mac 7500 and transferred a full camera's worth of 16 Fine images in just 20 seconds. A video-out port on the camera lets you view images on a television, and you can use the DualCam as a videoconferencing Webcam. (We couldn't test that function because the necessary software wasn't available at press time; Ixla says it will be available in the third quarter as a free download.)

For about twice the price of a DualCam, you can choose from several digital cameras that offer megapixel (1 million pixel) resolution and better image quality (though they lack the software Ixla provides). At press time, retailers were selling Epson's PhotoPC 650, Fuji's MX-1200, and Olympus's D-360L for just under \$300. But if you're cash-strapped, the Ixla may suffice, because it's got a nice price.

—Barnhard Feif

good news: Cheap. Lightweight and small. Adequate software.
bad news: Cheap. Poor image quality. No macro focusing. No removable memory storage. No LCD.



www.seemebuyme.com/ma1010

Picture This Software

Ixla's own software isn't Mac-compatible, so the company bundles Canto's Cumulus 5 as well as Corel's Custom Photo 5, which consists of Photo House and Project Designer with Photo Easy.

Photo House, a low-end image editing application, offers layers, resampling capabilities, and red-eye removal, among other features. For beginners, following the wizard's predefined paths can take the pain out of learning. For others, navigating this simplified interface can get cumbersome. Trying to find some buried tools will drive you nuts, and you don't get options like CMYK mode or masking.

Project Designer, while relatively simple, provides many templates for typical home-printing projects like creating flyers, greeting cards, and T-shirt transfers. It does most or all of the work for you, but if you want to edit any of the images, you'll have to switch back to Photo House.

Cumulus 5 (see *Reviews*, Jul/00, p74) lets you catalog and sort all the images on your hard drive or other storage devices according to various attributes. You can also compress folders full of images, create Web pages with thumbnails, and export catalogs to FileMaker Pro.



WITH A COUPLE OF CLICKS, the Canto Cumulus 5 can turn an image-filled folder into a Web page with hot links to the original images.



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Keeping them under control
is another story.

The Sims™



The game that hits close to home.



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XRouter Pro MIH-130

hardware

COMPANY: Macsense

CONTACT: 800-642-8860 or 408-844-0320, <http://www.macsense.com>

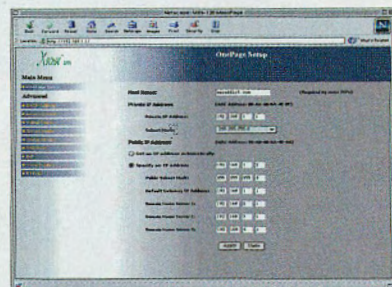
PRICE: \$249.99 (SRP), \$199.95 (street)

REQUIREMENTS: Mac with Ethernet port; DSL or cable modem connection highly recommended

As more homes turn to DSL and cable modems for high-speed Internet access, two questions arise: How can computers share a connection, and how can you control their use of it? Macsense, a division of Xsense, addresses both these concerns with its newly improved Internet-sharing hub, the XRouter Pro MIH-130.

A beefed-up version of the XRouter MIH-120 (see *Reviews*, Jul/00, p61) the XRouter Pro lets you share a single Internet connection (from a cable modem, a DSL connection, or an Ethernet connection to a larger network) among four or more Mac, Linux, or PC computers. Installation is a piece of cake, and configuring the XRouter Pro is simple—you just type a URL into a Web browser, which connects your Mac to the XRouter's control interface. From this specialized Web page, you can configure exactly how the XRouter Pro behaves.

The XRouter Pro sports several improvements. The speeded-up Ethernet ports can now pass packets between four computers at 100Base-T speeds. You can configure the XRouter Pro to block access to certain Web sites, or conversely, to allow access only to certain URLs. Using another new feature, we set up the XRouter Pro to host a second router



CONTROL AND CONFIGURE your connection from this easy-to-use Web page.

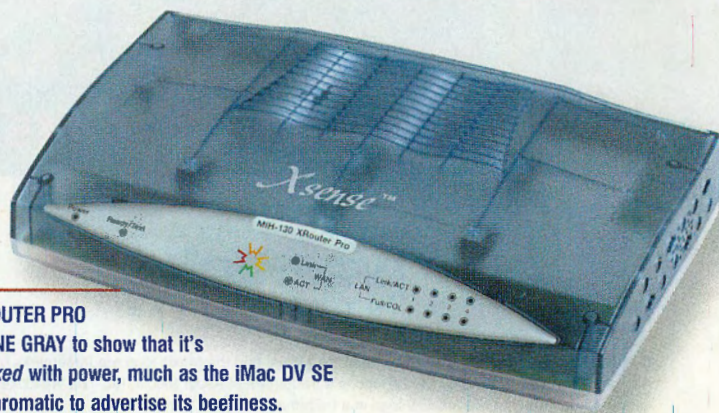
behind it in a kind of network-within-a-network arrangement.

If you're looking to set up a secure shared Internet connection, the XRouter Pro is a great buy. It features great performance, control over your connection, easy setup, tremendous reliability, and a translucent smoky-gray case for the style-conscious. Though pricey, it's well worth the money.
—David Reynolds

good news: Easy setup.
Trouble-free operation.
10/100 Base-T Ethernet. Solid security. Works with PPP over Ethernet connections.
bad news: What bad news?
A great piece of hardware.



www.seembeuyme.com/ma1011



THE XROUTER PRO HAS GONE GRAY to show that it's just packed with power, much as the iMac DV SE went achromatic to advertise its beefiness.

Traitors Gate

fun & games

COMPANY: Dreamcatcher, The Adventure Company

CONTACT: 888-611-9999 or 416-638-1170; <http://www.dreamcatcher.com>

PRICE: \$39.99 (SRP)

REQUIREMENTS: PowerPC 100MHz or faster, System 7.5 or higher, 32MB of RAM with virtual memory (48MB recommended), 100MB of free hard disk space, 8X CD-ROM, color display

Traitors Gate, the new 3D point-and-click adventure in the mold of Myst and The 7th Guest, should remain forever locked as a punishment for its tedious gameplay. The game asks players to assume the role of special operative Raven, taking on a challenging—albeit Saturday-morning-cartoonish—mission, code-named “Traitors Gate.”

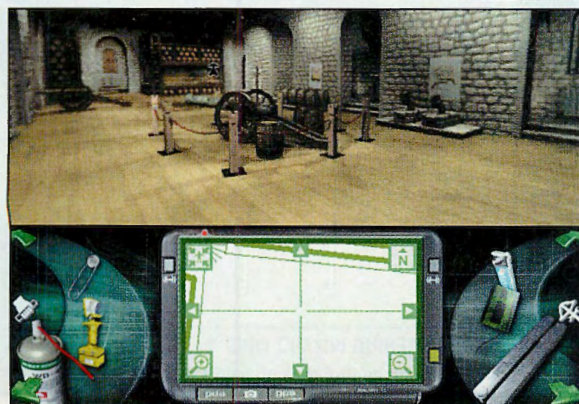
In the hackneyed plot, a high-level U.S. operative has gone rogue and is planning to steal England's famed Crown Jewels. Raven's task is to infiltrate the Tower of London, avoid detection at all costs, and replace the real jewels with fakes, which you'll use to track the game's true enemy. This makes sense, of course, except for the part that makes no sense.

As players click, click, click their way through pixilated environments, they follow an imperative to leave no trace of their existence—though the game contradictorily lets them burn through locks and shoot guards with nonlethal darts. Players have access to a good crop of weapons and tools, but must deal with an ineptly designed inventory interface. Instead of storing acquired gadgets in one place, it provides two separate and distinct inventory boxes (one for mission items, the other for acquired goodies)—you must scroll through items individually to find the one you want.

Mind-numbing gameplay dominates this four-CD wreck. Each point-and-click moves the hero around, but about a 3-second lag separates your mouse click and the response. This happens every time the hero enters a new location, so exploring a good-size room could easily eat up half an hour. In-game puzzles, which invariably require Raven to use an item in his inventory to manipulate an item in the environment, largely involve finding ingenious ways to unlock doors. This strategy can only hold your interest for so long, however, and Traitors Gate uses up all the portal-opening methods in the first disc. An in-game cursor allows a player to adjust the camera view (to look upward or downward and pan left or right)—this otherwise cool feature goes awry when it allows the camera to swing in wild circles.

Though saving the Crown Jewels may be an excellent cause, we propose a still more noble effort—preventing people from spending their precious cash on this game.—*Greg Orlando*

good news: Lots of gameplay.
Challenging puzzles.
bad news: Stinks like yesterday's socks.
Poor inventory interface.
Horrible exploration engine.



SLOW AND POORLY RENDERED, Traitors Gate takes all the fun out of thievery.

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e-Picture Pro

design & graphics

COMPANY: Beatware

CONTACT: 650-556-7900, <http://www.beatware.com>

PRICE: \$199 (SRP)

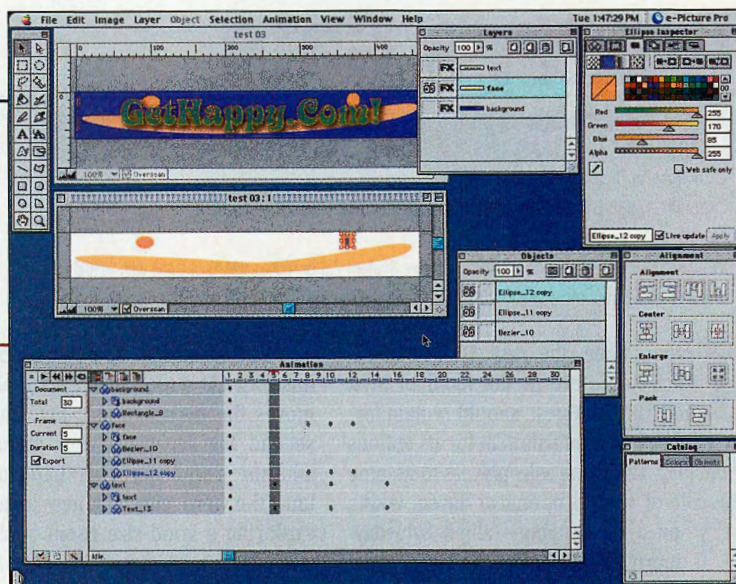
REQUIREMENTS: Power Mac, Mac OS 8.5 or later; 64MB of RAM, 20MB of free hard disk space, CD-ROM

Beatware's e-Picture Pro is a solid choice in the fast-growing genre of Web-specific graphics applications. Released last year as e-Picture, a tool for creating animated GIFs, the new Pro version is expressly designed to create animated banners for Web sites. Its smooth integration with popular 2D and 3D graphics applications makes it a great complement to your existing toolkit.

Using e-Picture Pro is straightforward. You can choose a template for standard-size ad banners or page elements (such as animated rollovers or navigation bars) and customize it. A document can contain separate layers, each capable of supporting numerous text or graphic objects. You can apply a variety of effects (such as inner shadows, outer shadows, and glows) to any object or layer. We especially like the support of composite modes (such as overlay, difference, multiply, and invert) for blending and combining objects.

Rather than reinvent the wheel with its own drawing features, Beatware chose to complement established graphic apps. E-Picture Pro imports native Adobe Photoshop and Illustrator files while retaining layer integrity, and exports to Flash (.swf), QuickTime, RealVideo, and a variety of other formats. It also imports 3D models in Lightwave format (.lwo) and the standard 3dfx model format. Although e-Picture Pro has some built-in drawing tools, the pen and brush aren't pressure-sensitive.

THE MULTIPLE VIEWS make viewing multiple layers a whole lot easier.



But whatever it lacks in drawing tools, e-Picture Pro makes up in animation tools. To animate any object, simply go to a point on the timeline and move the object to create keyframes. To speed up or slow down the animation, slide the keyframes backward or forward on the timeline. In addition, the Tweening Wizard (see "Tweening Wizardry," below) provides even greater control for finessing the animation both temporally and spatially.

E-Picture Pro does have some drawbacks. Although you can export both QuickTime and Flash files, you can't include sound in an animation. Those used to doing work in Flash or QuickTime will want sound and may find the silence uncomfortable.

Beatware provides tech support strictly through email. We discovered this when we couldn't get e-Picture Pro to launch successfully on our PowerPC 9500. Though Beatware was responsive and helpful, the problem remained unresolved at press time. If compat-

ibility with an older machine is important to you, contact Beatware before buying. We encountered no problems running the app on our iMac DV.

Billboards have taken on a whole new dimensionality on the Internet highway. While the physical ones still flank real highways, the virtual ones springing up on the Web world are more fun, better targeted—and *animated*. E-Picture Pro is well suited to the task of creating these little gems, and if Beatware continues to refine the program, it should evolve into a solid all-around tool.

—Mike Caputo

good news: Imports and exports many formats. Good animation control. Compositing modes for layer effects. **bad news:** Many palettes require a large screen. No support for sound. Email-only tech support.



spiffy

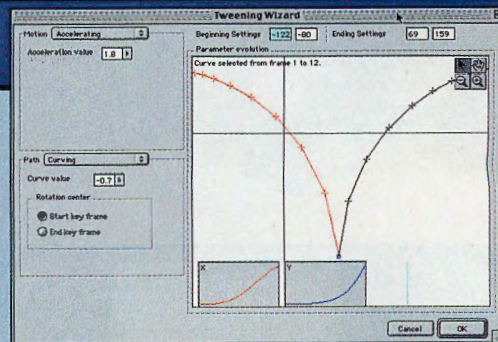


www.seemebuy.com/ma1005

Tweening Wizardry

The Tweening wizard in e-Picture Pro gives animators full control of temporal and spatial animation. Clicking any property—such as an object's color, size, or position—in the Timeline window brings up the Tweening wizard (as long as that property has two or more keyframes).

Many times an animator wants an object to start off slowly, increase in speed, then gradually come to a stop, as in the case of a bouncing ball. The Tweening Wizard lets you define the motion as Accelerating instead of the default Linear, which creates evenly spaced animation. In Accelerating mode, an acceleration value determines how quickly or slowly the object speeds up or slows down. Instead of setting up a circle that simply slides through the frame at an even pace, with the Tweening Wizard's improved animation control you can create a ball that bounces realistically in and out of view.



THE TWEENING WIZARD WINS the hearts of animators by allowing control over an object's speed and path.

InProduction

design & graphics

COMPANY: Adobe Systems

CONTACT: 800-833-6687 or 408-536-6000, <http://www.adobe.com>

PRICE: \$899 (SRP)

REQUIREMENTS: PowerPC 604 or faster (G3 or G4 recommended), Mac OS 8.5.1 or later, 64MB of RAM (128MB recommended), 20MB of free hard disk space, CD-ROM, Apple ColorSync 2.5 or later

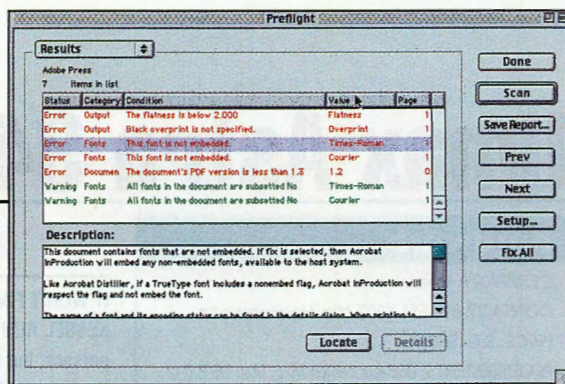
More and more designers are sending documents to commercial printers in Adobe's PDF format. With cross-platform functionality and a small file size, PDF helps streamline workflow and reduce processing time—but only when it's used correctly. Adobe created InProduction to debug PDF files and to give design and prepress folks greater control over trapping, trimming and bleeding, and other print issues.

Among InProduction's five main tools—Preflight, Trim/Bleed, Color Converter, Adobe in-RIP Trapping, and Separator—Preflight will benefit the majority of users. Preflight uses

a printer's PPD to build a profile, which includes such information as printer-resident fonts and optimized screen frequency. Once you've created a profile, you can send it to others who want to print PDF files to that printer.

When converting a project into PDF format, people often fail to embed the fonts within the document. InProduction solves that problem by embedding missing PostScript, Type 1, and TrueType fonts.

Preflight found a total of five errors and gave us two warnings on our simple, one-page document containing one art element and two copy blocks. It fixed three of the errors auto-



INPRODUCTION PREFLIGHT IDENTIFIES ERRORS, fixes what it can, and explains the rest.

matically and explained, step-by-step, how to address the rest.

This software comes with a big price tag, but it's a good investment for people who regularly send PDF files for commercial printing.

—Brad J. Guigar

good news: Fixes some problems automatically. Gives detailed instructions on fixing the rest.
bad news: High price. Users must develop their own preflight profiles.



www.seembebuyme.com/ma1006

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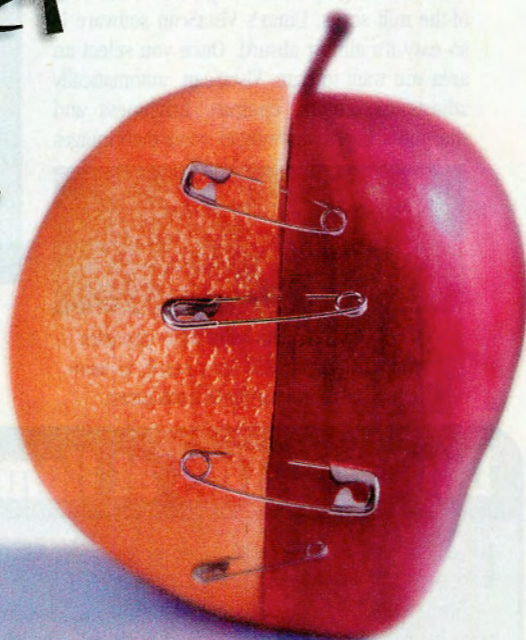
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Umax Astra 3400

hardware

COMPANY: Umax

CONTACT: 510-651-4000, <http://www.umax.com>

PRICE: \$99 (SRP)

REQUIREMENTS: USB-connected Mac, Mac OS 8.0 or later, 32MB of RAM, 250MB of free hard disk space

Think of the Umax Astra 3400 as the Millennium Falcon of flatbed scanners: As Han Solo said, "She may not look like much, kid, but she's got it where it counts." Its bland exterior conceals a powerful, easy-to-use scanner, perfect for students, families, and any user with simple scanning needs.

Installation's a snap: Plug in the included USB and power cables, run the installer CD, and you're set. The 3400 comes with a software bundle that includes PhotoDeluxe (Adobe's entry-level photo-editing program), Presto PageManager document management software, and a limited edition of OmniPage's optical character recognition software. Four buttons on the front of the scanner, easily configured via a Control Strip module, let users scan, copy, attach scans to email, and turn off the scanner lamp to save power.

For photographs, drawings, and other run-of-the-mill scans, Umax's VistaScan software is so easy it's almost absurd. Once you select an area you want to scan, VistaScan automatically adjusts the colors, contrast, brightness and sharpness. Users who want to tweak their images

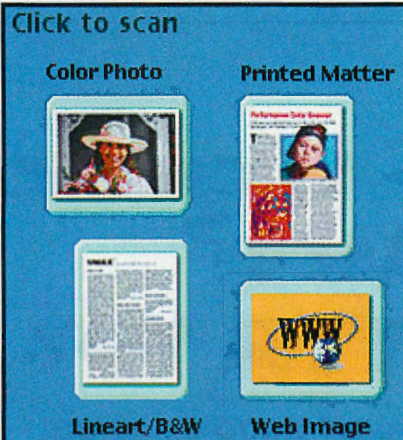


GREAT SCOTT! The Astra 3400 captures bright colors and fine lines easily, as seen in this detail from a comic book cover.

IT WON'T FINISH THE KESSEL RUN in less than 12 parsecs, but for home and student users, the Astra 3400 offers out-of-this-world performance.

manually before scanning can do so with just a few clicks. The program's colorful interface doesn't follow Macintosh design conventions, but it's intuitive, effective, and offers separate feature sets for beginning and advanced users.

At 42-bit color and up to 600-by-1,200-dpi hardware resolution, the 3400 creates great-looking images. Scans often come in a bit fuzzy, but you can quickly sharpen them with your image-editing program of choice. For simpler images, the 3400 is lightning fast; at 300 dpi, it scanned a 4-by-6-inch photo in just over 16 seconds. Full-page black-and-white images often took 10 seconds or less.



ANYONE CAN BECOME A SCANNING SUPERHERO with VistaScan's beginner mode, which leaves most of the dirty work to the image-adjustment software.



PHOTOGRAPH BY AARON LAUER

If you're scanning at extremely high resolutions, however, you're in for a long wait. A standard-size photograph took a whopping 9 minutes to scan at 2,400 dpi, plus 2 more minutes to appear onscreen. Though the Astra 3400 can scan at up to 9,600 interpolated dpi, it can only use a small portion of its 8.5-by-11-inch scanning area to do so.

There are a few minor annoyances. The autoadjust feature sometimes oversteps its boundaries, obliterating subtle color tints in illustrations. When scanning, the 3400 makes a moderate amount of noise, and it monopolizes your computer until the job's done. Like previous Umax models, the device is anything but eye-catching, and its case and lid feel thin and flimsy. Strangest of all, it lacks an on/off switch.

While these problems are enough to downgrade the Astra 3400 from *Freakin' Awesome* to *Spiffy*, they don't even begin to overshadow its good points. We could hardly believe how well it scanned our ordinary photos, drawings, and even spare change. When you factor in its low \$99 price tag, the Astra 3400 is downright stellar in spite of its flaws.—Nathan Alderman

good news: Great image quality. Powerful, easy software. Low price.
bad news: High-resolution scans are slow. Case feels cheap.



www.seembuyme.com/ma1008

Don't Try This at Home

If you thought photocopying your face (or any other part of you) was unusual, wait until you see what Cliff Bleszinski did with his scanner.

Bleszinski's Cat Scan Homepage (<http://www.cat-scan.com>) features scanned images of actual live cats. (No, no one closed the lid on the cat.) Though Bleszinski has received plenty of angry mail from cat lovers, his fans from all over the world have also sent in abstract scans of their own pets. Some of Bleszinski's images have even appeared in a San Francisco art gallery.

Note to pet owners: Since the light from the scanner can seriously hurt your pet's eyes, stick to scanning photographs of your cat instead of the real thing.



MEOWWWW!!!

Suitcase 9

utilities

COMPANY: Extensis

CONTACT: 800-796-9798 or 503-274-2020, <http://www.extensis.com>

PRICE: \$99.95 (\$RP), \$49.95 upgrade from Suitcase 8 or Suitcase 3

REQUIREMENTS: Power Macintosh, Mac OS 8.5 or later, 32MB of RAM with virtual memory, 8MB of free hard disk space

It's the year 2000, and *font* is still a four-letter word. Get used to it, and get a good font management and maintenance program. With a few new features and an interface revamp, Suitcase 9 might fit that bill—if it weren't such an underwhelming upgrade.

Last year, Suitcase 8 included Insider Software's FontAgent. Unfortunately, this year's version doesn't include any capability to detect corrupt fonts, so new users will have to lay out more cash for a font maintenance utility.

Suitcase 9 does have some slick new features. You can configure the main window to display fonts, font sets, and/or type previews,

each in its own pane. In the Fonts and Sets panes, you can view by font name, foundry, or type. In true Mac style, Suitcase now lets you drag and drop fonts between panes or from the Finder. The Fonts window also offers a font suitcase view, which doesn't work yet (Extensis says a patch is in the works). The flexible Preview pane provides four views of a font's appearance.

Among the less-slick new features is MenuFonts, which creates enhanced WYSIWYG font menus—handy, but redundant in many applications (Microsoft Word, for one).

All told, Suitcase 9 is still the Ginsu knife of font managers. If you need to manage fonts

FONT SETS KEEP unneeded fonts out of your way—and out of your precious RAM.

over a network, Suitcase Server has no real competitors. But if you're using fonts on just one machine, \$49.95 is pretty steep for such a minor upgrade.—*Niko Comcouvanis*

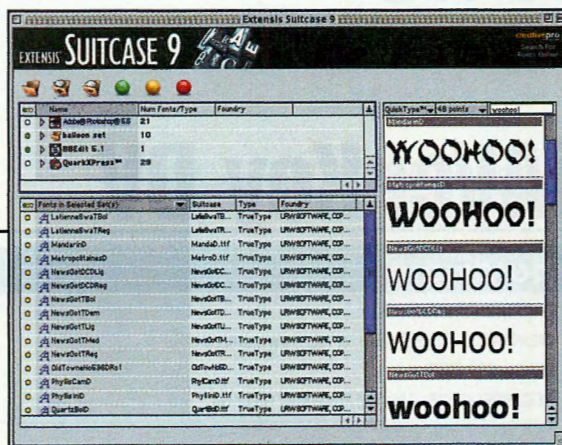
good news: Configurable interface.

Suitcase Server and Windows compatibility for workgroups.

bad news: Minor upgrade. Eats RAM for breakfast. No more FontAgent bundle.



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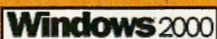
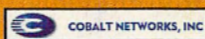
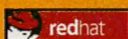
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Server Log Files
CGI-BIN & Scripts

Other Plans Include:



More Disk Space
More Email POPs
WIN 2000/ASP
Real & Quicktime Streaming
PHP & MySQL



iAVerKey DV

hardware

COMPANY: AVerMedia

CONTACT: 408-263-3828, or <http://www.aver.com>

PRICE: \$99 (SRP)

REQUIREMENTS: iMac DV, PowerMac G3 or G4

For iMac DV owners tired of seeing their favorite DVD movies squeezed onto a 15-inch screen, AVerMedia's iAVerKey DV may look like a dream come true. It easily pipes your iMac's video signal onto a larger TV screen, and at \$99, it's less expensive than most similar products. But looks can be deceiving: The blurry picture on our TV just couldn't compare to the crisp, clear iMac screen.

The iAVerKey DV is easy to set up—just plug in the AC adapter, connect one cable to your Mac's external video port, and another to your TV's video-in jack. To its credit, AVerMedia thoughtfully includes all the cables and adapters you need to plug in the device.

On our 17-inch test TV, the monitor image was bright and flicker-free. 3D games looked decent enough, despite some noticeably bleeding colors. However, the TV screen's lower resolution made the text fuzzy and unreadable at anything below 18 points, making Web browsing an exercise in squint-eyed frustration. If you're going to use the iAVerKey DV to show off a PowerPoint presentation, you'd better make your text big and colorful.

The iAVerKey DV's handling of DVD movies was its biggest disappointment. The picture seemed jerky and pixilated, and the colors were muddy and blotched, like a badly compressed GIF.



PHOTOGRAPH BY ARON LAUER

IT'S SMALL AND INEXPENSIVE, but with the iAVerKey DV, you get what you pay for—and that's not much.

Schools or small businesses looking for a quick, inexpensive way to show Mac presentations on a TV may find the iAVerKey DV an acceptable solution. But DVD fans who need to see their movies on a bigger screen should save up for a real DVD player.—*Nathan Alderman*

good news: All cables included.

No software drivers needed.

bad news: Poor picture quality.



www.seembuyme.com/ma1012



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For Zip, Scanners, Hard Drives, and other SCSI Devices.

The Orange Converter is a unique device for Mac and PC users allowing SCSI peripherals to connect to FireWire 1394 ports.

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iMac owners with FireWire ports can now have access to SCSI peripherals. Macintosh G3 and G4 owners who are "slot challenged" can use the Orange Converter to save a valuable PCI slot by removing any existing SCSI PCI host adapter card, and replacing the SCSI functionality with the Orange Converter.

The Orange Converter is limited to a single SCSI device, however, most devices once connected to the Orange Converter can be hot plugged to a FireWire port. The Fast SCSI data transfer rate is 10 Megabytes/second. This is up to 5 times faster than the existing USB to SCSI converters currently on the market.

The Orange Converter comes standard with a 25 pin SCSI connector, a 6 foot FireWire cable and a power supply.

Get an Orange Converter and connect all your SCSI devices!!



Orange Micro inc.
www.orangemicro.com

Readiris Pro 6

productivity

COMPANY: I.R.I.S.

CONTACT: 800-447-4744 or 561-395-7831, <http://www.irislink.com>

PRICE: \$79 (SRP)

REQUIREMENTS: PowerPC or faster, Mac OS 7.6 or later, 22MB of RAM, 25MB of free hard disk space, CD-ROM

Though it has its problems, Readiris Pro 6 optical character recognition (OCR) software does a serviceable job of converting nearly 50 languages into editable text. It didn't translate our English, Turkish, and Italian documents with 100 percent accuracy, but we got respectable results.

Readiris is adept at handling complex page layouts, but you need to prepare documents before starting the recognition process. When Readiris acquires a page as a scanned image, the software marks text, graphics, and tables with boxes of various colors. It also uses a system of arrows, which you are free to rearrange, to point in the direction the software will read the text. You can choose to re-create the original document's layout when you export text, but we suggest avoiding this option, since oftentimes the text will flow incorrectly. You'll get best results if you first delete all graphics from the document, then export it as straight text into Word or SimpleText.

The software's main downfall is its buggy nature. While it had no problem handling

PICTs and JPEGs, at times it refused to open TIFF files. Sometimes Readiris would even unexpectedly quit without rhyme or reason.

Although most scanners allow you to scan directly into Readiris, as of press time, those using TWAIN scanning software can't. I.R.I.S. is working on a fix, which should be ready by the time you read this. This omission is no big deal, since there is a workaround, but we would have saved time and avoided aggravation if either the (badly written) manual or I.R.I.S.'s tech support department had mentioned it.

Readiris is a useful product for those who need OCR help. But in addition to a PowerPC and 22MB of RAM, you'll need a fairly high tolerance level to deal with this quirky software. —Cathy Lu

good news: Recognizes nearly 50 languages. Decent accuracy. Handles colored text surprisingly well. **bad news:** Buggy software. Retaining document settings is often futile. Crappy manual.



www.seembuyme.com/ma1013



READIRIS UNDERSTOOD TURKISH much better than we did. Here it converted a fairly simple document (right) into fully editable text (left).



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Kidz Stuff

Backyard Baseball 2001

COMPANY: Humongous Entertainment
CONTACT: 800-499-8386 or 425-486-9258,
<http://www.humongous.com>
PRICE: \$19.99 (SRP)
REQUIREMENTS: Power Mac, System 7.5.3 or later,
 32MB of RAM, 5MB of free hard disk space, 4X CD-ROM

Act out your baseball fantasies: Strike out Barry Bonds or hit a grand slam off Curt Schilling. Backyard Baseball allows you to select a pint-size all-star team of your favorite Major League ball players to play with Humongous Entertainment's Backyard Bunch.

This fantastic premise is well executed, allowing you to play against the computer or another player's team in a single game or as part of a 14-game season culminating in the Backyard World Series. Hitting is easy with clear, easy-to-follow icons cueing batters for various options including a bunt, line-drive, or grounder. The game's also a hit for allowing each athlete's personality to emerge. Stars



BATTER UP with some heavy hitters from the peanut gallery.

like Mo Vaughn saunter up to the plate and Mike Piazza utters clever barbs while waiting for a pitch. The game closely mimics a ball game, featuring field chatter (swing, batter, batter!) and the announcer's nonstop commentary. Humongous Entertainment's excellent execution of a terrific concept will make this game a hit with Little Leaguers.—*Keelin Devincenzi*

good news: Addictive gameplay.
 Great player banter.
bad news: You can't field balls or control your running speed.



www.seemebuy.com/ma1015

Scholastic's The Magic School Bus Explores Bugs

COMPANY: Microsoft
CONTACT: 888-218-5617 or 716-871-2915,
<http://www.microsoft.com>
PRICE: \$19.95 (SRP)
REQUIREMENTS: Power Mac, System 8.1.2 or later,
 32MB of RAM, 15MB of free hard disk space, 4X CD-ROM

The eighth installment of the popular software series—based on the collection of books and the Fox Kids TV program—blends interactive learning and adventure to make the science of bugs fun for those ages 6 to 10. Constant action, terrific graphics and intriguing sounds ensure players won't be bored as they try to recapture



FIND JUNE BUGS, not roaches, on this Magic School Bus ride.

four bugs that have escaped from Ms. Frizzle's classroom terrariums into their natural habitats. By exploring these habitats and learning about the bugs located within, players can deduce which one to bring back to the classroom based on clues such as color, eating habits, and mating practices. Within each habitat, players can also click student reports—exceptionally well done animated shorts that feel like a bona fide, albeit 60 second, Discovery Channel special. The software also includes 15 different games, including the entertaining "Bugs Are It," where players can test their knowledge of what they've learned so far. Overall, the software uses great graphics, animated clips, and audio to make learning fun.

—*Keelin Devincenzi*

good news: Makes bug science fun.
 Clever graphics and animation.
bad news: Limited replay value.



www.seemebuy.com/ma1016

PokéROM

COMPANY: Mattel Interactive
CONTACT: 800-395-0277 or 319-247-3333,
<http://www.mattelinteractive.com>
PRICE: \$7.99 (SRP)
REQUIREMENTS: Power Mac, System 8.0 or later, 32MB of RAM, 10MB of free hard disk space, 4X CD-ROM

The Pokémon craze continues with Mattel Interactive's PokéROMs, educational quiz software shaped like the popular trading cards. Fifty different PokéROMs will be released by the end of the year, capitalizing on that popular "gotta catch 'em all" marketing phrase. We'd suggest skipping them all. In each PokéROM, Professor Oak guides players through various activities, including a math and puzzle solver; an observation tower, where you can observe Pokémon characters in their natural environment; and a quiz contest. The quiz is the only worthwhile activity, allowing up to three friends to test their knowledge of math, science, and reading from a choice of five different skill levels (grades 1 to 5). With 11 questions per quiz game and only 2,000 questions total, you would go through all the questions in less than 200 games. We played

Q

What do these numbers have in common: 25, 35, 85, and 105?

LIKE BARBIE SAYS, math is hard.

10 times and already began to see repeat questions. The math and puzzle solver is too easy, and the observation tower, which displays a slide show of Pokémon screen shots, seems a little pointless except to the Pokémon-obsessed. So unless you're one of the zealots, you're probably better off buying a trivia game that offers more questions for your money.

—*Keelin Devincenzi*

good news: Educational. Cheap.
bad news: Limited number of questions.



www.seemebuy.com/ma1017

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powerplay

It's not reality, but it sure tastes better when it's cold.

Bounce Back

Peter Tamte, Microsoft's Mac Man

Much to the relief of Mac gamers, Microsoft and Bungie (which recently became a Microsoft subsidiary) announced in July that Bungie's stunning new game Halo will indeed come to the Mac. A new company, headed by former Bungie vice president (and previous MacSoft executive director) Peter Tamte, has taken charge of bringing Microsoft's key games, including Bungie's titles, to our platform. The good news doesn't stop there, though—not only will Tamte's newest foray into the Mac gaming market render Microsoft's games Mac ready, but the company is going to author original games as well.

We chatted with Peter a few weeks after he and Microsoft announced the formation of his still unnamed company, and he gave us the skinny on the new company, Mac games, and Microsoft.

MacAddict: How did your deal with Microsoft come into being?

Peter Tamte: Microsoft's strategy is to be a multiplatform game publisher. [Microsoft has] always had an interest in making its games available for the Macintosh, and [the people there] were concerned that their acquisition of Bungie not be viewed as Microsoft trying to take something away from the Macintosh market. They wanted to make it clear that Halo is going to be available on the Macintosh, and they wanted to put into place a way to ensure that all of Microsoft's key games are made available on the Mac.

MacAddict: Is your new company completely independent?

Peter Tamte: That's right. My relationship with Microsoft is solely a licensing relationship.

MacAddict: Will your new company publish titles by other companies as well?

Peter Tamte: That's unclear at this point. I'm interested in making sure the best games are available on the Macintosh. If somebody else isn't following up on an opportunity, I might be interested in [that opportunity]. The licensing arrangement I have with Microsoft, however, is one component of a larger entertainment strategy, which is the foundation of why I'm creating this company. This company is going to create original content for the Macintosh and other platforms, and bring key content to the Macintosh.



FORMER BUNGIE VP Peter Tamte's new company will bring Microsoft's key game titles to the Mac.

MacAddict: What's the first Microsoft title the new company will port over?

Peter Tamte: The first one we're going to work on is Age of Empires II: The Age of Kings.

MacAddict: Why did you decide on that title?

Peter Tamte: I personally believe that it is one of the best games ever created. I'm interested in publishing games that have cultural significance. I want the experience of playing a game to be more than just a temporary adrenaline rush. I want people who play games to get something bigger out of them. Age of Empires II is an opportunity for people to relive another time period, to learn about other cultures, and to challenge themselves with building a new civilization within the medieval time period. To me, that's highly engrossing, and it's exactly the kind of content I want to provide. It is also one of the best-selling games ever.

MacAddict: Can we look for these elements in your original-content games?

Peter Tamte: Yes. I'm going to try to create culturally significant titles, the kinds of games that provide a deeper experience.

MacAddict: What kind of potential, if any, do you see in Apple's new Power Mac G4 Cube?

Peter Tamte: What I think is interesting about the Cube is that Apple seems to be the only computer company that recognizes there are physical obstacles to people using computers in more areas of their home or in more aspects of their lives. We saw what happened when Palm came out with the Palm Pilot. It has a good form factor, and it's an easy-to-use, accessible device. A lot of what [Palm] solved for the first time were physical obstacles [that kept people from] using a mobile computing device. I think computer manufacturers need to approach the computer's use in the home the same way Palm did when it created the Pilot. The Cube's a good first step.

MacAddict: Will your new company shoot for simultaneous releases of Microsoft games?

Peter Tamte: Yes. Obviously we can't do that with Age of Empires II, but that's what we're going to try to accomplish for Flight Simulator 2002 and [the next version of Links™ LS].

MacAddict: Will you try for a simultaneous release of Halo?

Peter Tamte: Yes—the plan is to release Halo simultaneously on the Mac and PC.

MacAddict: Will every Microsoft game get ported, or just the ones you guys pick?

Peter Tamte: It'll be the key games. Microsoft would like to see as many of its games made available on the Macintosh as possible. There are logistical issues associated with getting a lot of games done, but we're going to bring as many of the key games over as we can.—RC



AGE OF EMPIRES II: The Age of Kings will be Tamte's new company's first title.

PHOTOGRAPH COURTESY OF PETER TAMTE

Baldur's Gate

A Preview from the Realms

We wouldn't have believed it ourselves a few months ago—so many games shipped this summer that we simply couldn't handle the deluge. Despite gallons of coffee and as game-playing-intensive a staff as any in the business, something had to give—and we couldn't fairly review Baldur's Gate (available from GraphSim at <http://www.graphsim.com>), a massive real-time, role-playing game that ships on five separate CD-ROMs. We'll give you a full review of Baldur's Gate next month, once we've had a chance to master its complexities—for now you'll have to settle for some preview ramblings we've managed to drum up between playing Diablo II, Deus Ex, and the Sims.

In Baldur's Gate, you control a party of adventurers as they wander through a world full of monsters, magic, and intrigue. Cities offer places to rest, but can also harbor assassins, thieves, and other members of the usual underclass you'd expect to find in a fantasy story. In wilderness areas, you'll encounter travelers, monsters (both weak and strong), dungeons, and ruins full of hostile monsters.

We initially had mixed reactions to Baldur's Gate—while the game is vastly intricate, it suffers strongly from some of the same flaws as the Advanced Dungeons & Dragons (AD&D) gaming world from which it borrows its structure. In particular, the game makes low-level AD&D characters extremely weak, and it doesn't always coddle them the way a

human Dungeon Master would—a group of vastly powerful monsters often sets upon an inoffensive traveling party as they attempt to journey through the Sword Coast (this makes for a lot of dead characters). Fortunately, Raise Dead spells are very, very cheap—so cheap that the screams of other characters at the death of a party member have all the emotional impact of “Oh my god! He killed Kenny!”

Still, after a great deal of playing (and frequent saves—you'll find yourself saving games with names like “a few seconds later” and “got him!”), the game's terrific series of nonlinear plots had us hooked. Now, if only its makers manage to port the multiplayer version, that would truly thrill us (at the moment, Mac users get a sticker promising a multiplayer game “when available”).

—JS



A TYPICAL BATTLE—spell casters and archers stay back as a swordsman runs forward.



THE MAP IS OFTEN THE ONLY WAY to figure out the parts of a level you've missed. The highly stylized closed eye in the lower right tells your party to set up camp for the night.

Sammis-Worshipping Sims

In an attempt to win adulation, at least in simulated life, I moved a four-person cult into an empty lot next to my (previously) happy family and built a commune there—a large open room at the front, two barracklike bedrooms off either side of a narrow hallway, and a bathroom at the back. No TVs or sofas for these Sims—moral rectitude alone would sustain them. Cultie

Communer (my touchy-feely leader) frightened off most of the neighbors by attempting to give them backrubs at odd moments, while Vanessa got a job as a daredevil. Cultie then found a late-night job as a security guard.

My little cult quickly degenerated. Moral rectitude proved not to be terribly entertaining, and my cult members suffered from profound social ineptitude. After a couple days, they became far too depressed to find work or even to cook—kitchen fires occurred almost nightly. Adding to the malaise, they found the cheap rail beds very uncomfortable, and people frequently clogged the narrow hallway to the sole bathroom, resulting in full bladders and unhappy Sims. After a particularly bad night, Bob Communer passed away, sending the entire commune into paroxysms of mourning. Theo and Cultie grew to detest one another on sight, further straining the group. It seems my dreams of godhood must go unfulfilled—cults work as badly for Sims as for people.—JS



BOO-HOO!

Screen Shot of the Month

This month's digital delight comes from Madden NFL 2000. If you want your shot at 15 seconds of fame, mail your best gaming screen shot selections to letters@macaddict.com.



Artist's Statement

I used my G3/300 MT beige (glossy black, actually), with a 12MB MicroConversion Voodoo2 card, to take this shot. I took it during an online game—notice the plug in the top right corner.—Rick “Rico” Law

how to

Run! It's an escapee from Powerplay!

Play Override with Overdrive

by Ian Sammis

What You'll Need

- A USB controller or joystick
- USB Overdrive
- Escape Velocity Override

EASY

TOUGH

This stuff's for the pros.

TRICKY

It'll take some effort, but you can do it.

EASY

The fundamentals, if you will.

FIND USB

Overdrive 1.3 on The Disc.

GOT A SETUP THAT'S LEADING TO GLORY? Come describe your victories at <http://www.macaddict.com/debate>.

One forever are the sad days when we Mac gamers had to keep our upper lips stiff and the tears from our eyes as we answered taunts from our PC-using friends by claiming that we could drive perfectly well with a mouse or adequately pilot a fighter with a keyboard. In this grand new age of USB, we finally have a vast range of outstanding joysticks, gamepads, and steering wheels from which to choose.

Sadly, our utopian new existence is not without flaw. Nearly every one of our great new input devices works through Input Sprockets, a neat set of tools Apple has provided game developers to let them incorporate different types of controllers easily. While that's fine for new games, if you want to play an older game you're often back to the world of the keyboard and mouse. That's a darn shame—a lot of older games are just crying out for the newer controllers.

Fortunately, a clever little shareware control panel called USB Overdrive (<http://www.usboverdrive.com>, \$20) offers a solution. USB Overdrive gives you a second way to use a USB controller for gameplay. It allows you to assign your controller's various analog controls and buttons to the mouse movements and keystrokes older games require. As an example, let's make an old favorite, Ambrosia Software's Escape

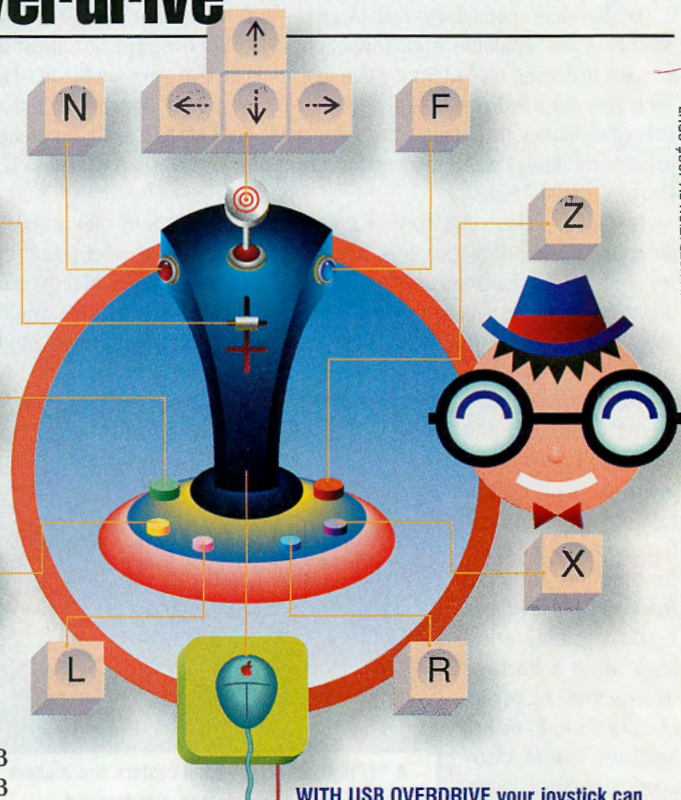


ILLUSTRATION BY JOSÉ CRUZ

WITH USB OVERDRIVE your joystick can emulate both mouse and keyboard.

Velocity Override (<http://www.ambrosiasw.com>, \$25), work with a brand-new USB joystick.

Thinking About the Game

When you assign game controls to a USB joystick, you'll often face the problem of which controls to assign to which actions. This problem becomes particularly acute in a game like EV Override—with keyboard controls firmly in mind, its designers created 31 different controls. Since this is more than even the most wildly overdesigned controllers provide, you'll have to be a bit selective about what controls you assign to the joystick. Here are a few guidelines to keep in mind.

PUT COMBAT-RELATED COMMANDS ON THE CONTROLLER.

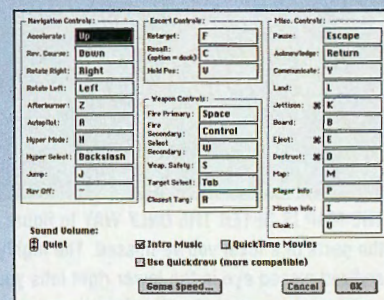
When you're in a fight, you *don't* want to have to spend time finding the appropriate key for an action on the keyboard.

LEAVE INFORMATION COMMANDS ON THE KEYBOARD.

You're rarely in any hurry to check your mission info, so you can safely leave it on the keyboard. Likewise, you don't need to assign player info and map buttons to your controller.

LEAVE RARELY USED CONTROLS ON THE KEYBOARD.

You're not likely to have escorts early in the game, so you won't need access to the escort controls right away. Similarly, you (hopefully!) don't use the destruct command very often.



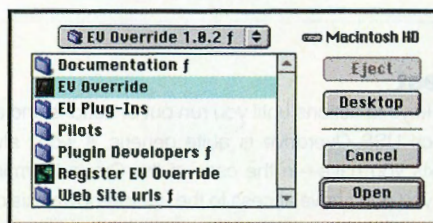
WITH 31 POSSIBLE CONTROLS, you'll need to put some thought into your assignments. If you won't, we want your joystick. Now.

1 Initial Steps

Start by installing both EV Override and USB Overdrive. Once you reboot, select USB Overdrive from the Control Panels submenu of the Apple menu. For the moment, focus on the leftmost pane in the window. The list box contains all the programs for which you've created control sets. Because you've just started, you'll see only Global settings—these apply when you're not in a program for which you've created specific controls. Click the New button, dismiss the warning dialog box that appears, then find your copy of EV Override and click Open. You should now have a new setting, EV Override, in the control panel. Make sure you've chosen Joystick in the pop-up menu above the left list box.



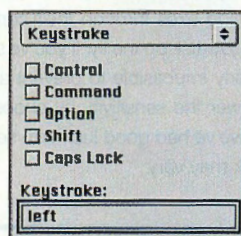
IN USB OVERDRIVE, you can configure new settings for each application.



THERE'S EV OVERRIDE, still quietly lurking where you last saw it.

2 Rotating

Begin the control-mapping process by assigning the commands you'll need to turn the ship clockwise (right arrow) and counter-clockwise (left arrow). Assign these controls to pulling the joystick left and right. To start, click Stick Left from the list box in the center. Choose Keystroke from the pop-up menu on the right side of the window. Next, click the box below the word Keystroke and type the left arrow key. You've now assigned the left arrow to pulling the joystick to the left. Similarly, assign the right arrow to Stick Right.



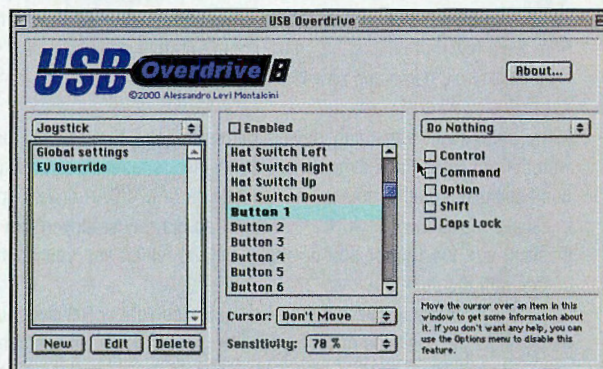
WHEN YOU PICK Keystroke from the pop-up menu, this panel appears, letting you select a keystroke and/or modifier keys.

3 Accelerating and Weapons Fire

You might think assigning the accelerate command to Stick Up would make sense, following the arrow keys. In our experience, however, holding the stick forward constantly, as you'll find necessary for maneuvering in EV Override, can get tiresome—after playing an Override game, you'll feel like you've been shaking hands with a gorilla. Instead, assign it to a button. Assign accelerate (the up arrow) to a button on your joystick that you can hold down without putting too much strain on your hand.

You'll also want buttons for your weapons controls. On most modern joysticks, the two most accessible buttons are the trigger and the one that rests under your thumb—it feels natural to assign these to Fire Primary and Fire Secondary, respectively. When you push a button on the joystick, USB Overdrive immediately jumps to the appropriate button number in the central list box. Click the trigger to find out which number represents it (usually 1). Assign a space keystroke to this button.

Assigning the secondary fire control is a bit trickier—you need to use a modifier key, Control. You can't just press the control key, because to USB Overdrive that doesn't count as a keystroke (only the keys that would create characters in a word processor count as keystrokes). Instead, USB Overdrive counts Control, Option, Shift, and Command as modifiers that you assign with check boxes. To assign a Control keystroke, click the box below the word Keystroke as usual, but this time press the Delete key. This creates a blank keystroke, to which you can assign modifiers (a blank keystroke with modifiers tells USB Overdrive to only press the modifier keys). Click the Control check box to indicate that you want to press the Control key.



WHILE YOU HOLD DOWN A BUTTON on the joystick, USB Overdrive highlights the appropriate button number in the list box.

4 Target and Weapon Selection

The final set of controls you'll need in combat are the weapon and target selection controls. These are natural choices for a hat or rocker switch on the right side (on the left side if you've got a left-handed stick) of the joystick.

Weapon selection is the letter W by default, which is very easy to assign—just as with the previous keystrokes, click in the Keystroke box and press W. Target selection, by contrast, is a bit tricky. You can't just press the Tab key with the cursor in the Keystroke box; as with any other well-designed dialog box, doing so will just move the cursor to the next field! Fortunately, USB Overdrive is clever about this—just press Option-Tab to enter a Tab character.

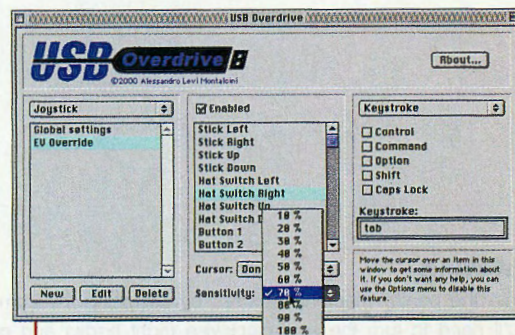


ONCE YOU HOLD DOWN THE OPTION KEY, you'll have no problem entering Tabs.

5 Finish and Test

Continue assigning keys to actions until you run out of buttons and axes. Remember that since USB Overdrive is quite generic, it won't always work with every analog axis you have—in the case of the Gravis Xterminator Dual Control, for example, you don't have access to the up-and-down axis of the thumb pad, and the wheel control hasn't worked on either of the joysticks we've tested. When you've made all the desired selections, click the Enabled check box. This will make the set active when you run EV Override.

Now start up EV Override. You may find that your ship initially tumbles out of control. To calibrate your joystick, move its analog axes through their complete range of motion—USB Overdrive can calibrate a joystick on the fly. If you've set the sensitivity too high, though, you may find it nearly impossible to prevent an axis from triggering. If you run into this problem, lower the sensitivity by choosing a lower number in the Sensitivity pop-up menu—we've had good luck with sensitivities of around 30 percent, although your joystick may vary.



AT 100 PERCENT, you have to be a Jedi master to avoid triggering in one direction or the other. We've had good luck at 30 percent; your results may vary.

Overdrive Tricks

While all this should make EV Override play nicely with your joystick, our example doesn't cover the full gamut of USB Overdrive's tricks. Here are a few more tricks that make USB Overdrive indispensable if you want to play old games on new Macs.

Cursor Modes

Many older flight sims and driving games require that you fly or drive with the mouse. This is almost hopeless—there's a very good reason you don't see pilots madly mousing during takeoff, or NASCAR drivers spinning trackballs for all they're worth. To control an old mouse-driven sim with a joystick, use the Cursor pop-up menu option, which lets you control the cursor with the stick.

The Cursor menu gives you two choices, Absolute or Relative. Absolute mode maps the positions of the joystick to specific positions onscreen—so moving the joystick as far up and left as possible, for example, puts the cursor in the upper left corner of the screen. Relative makes the cursor move in the direction you pull, so moving the joystick to its extreme up and left position moves the cursor in the same direction onscreen. To tell which one you need, see if the game you're playing automatically stops a turn when you release the mouse, or if the turn continues until you move the mouse

back away from the turn. If you only turn while you're actually rolling the mouse, use Relative mode, which will simulate a nice, steady mouse movement. If you keep turning until you carefully move the mouse away from the turn, you should use Absolute mode, and take advantage of the wonders of your (hopefully) auto-centering joystick.

Joystick Scrolling

If you're a fan of older strategic games, you'll frequently find yourself moving to and from the scroll bars to see the entire map. If the game you're playing uses standard scroll bars, you can assign one of three commands to each direction (up, down, left, or right): Accelerate (scrolls by one line), Scroll (scrolls a number of lines you set), and Page (acts as though you clicked briefly in the gray area of a scroll bar).

Mouselook with Better Mice

If you're playing a shooter that uses mouselook, USB Overdrive's mouse capabilities can come in handy; it handles some of the more complicated multibutton mice you find these days (Microsoft's Intellimouse, for example, has five buttons and a wheel). You'll find the ability to switch weapons quickly from the mouse far more than useful—there's nothing quite like getting trapped in a corner and realizing that you're holding a Redeemer.

Ian Sammis likes any month in which he reviews one game and writes a how-to about another.

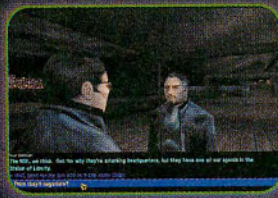
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Stitch Scans in Photoshop

by Joseph O. Holmes



What You'll Need

- Photoshop 5.5
- A scanner
- An image too large to fit your scanner bed



Your scanner does a terrific job, and color photos look great on your Web site. But you've stumbled across a slight hitch in your plan to post dozens of full-color vinyl album covers on your site, "Great Album Covers of the Sixties." When you slap the 12-inch-square cover of Billy Mure's 1960 classic *Supersonic Guitars* on the scanner, you discover it doesn't fit on the 8½-by-11-inch bed.

Now what? Change your Web site to "Coin Collectors' Corner?"

The answer is obvious: Scan twice. Scan the right and left halves separately, then stitch them together in Photoshop. Unless you know a few sneaky Photoshop tricks, though, the seams will show. Follow this step-by-step guide and you'll convince your visitors that you have access to a very large scanner! (Keep in mind that many images fall under copyright—you may need to get permission to use them on a Web site or in print.)



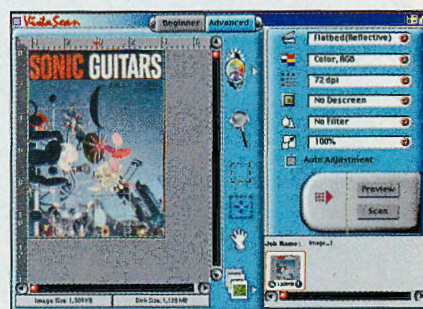
NO, WE DON'T HAVE a 12-inch-wide scanner, we stitched two scans together to create this image. Can you see the seam?

1 Capture the Album Cover in Two Scans

Slap that album cover on your scanner and press one side up against the edge of the scanning bed, doing your best to keep things perfectly straight. Then launch Photoshop and select your scanner's plug-in from Photoshop's Import submenu under the File menu. Set your scanning software as follows: If you're scanning for the Web, scan at 72 to 100 ppi (pixels per inch). If you're printing, divide your inkjet dpi by three for scanning in ppi (that is, for 720-dpi printing, scan at 240 ppi). Remember, doubling the dpi will quadruple the file size, so err on the low side—you can run a test print with lower settings to see if you find the results acceptable. Use RGB color instead of Web color, 216 colors, or 256 colors. Keep your scanning software at exactly the same settings for both the left and the right scans, avoiding filters, auto adjustment, and other refinements.

Now scan half your album cover, then repeat the process for the other half. You'll have about 3½ inches of overlap, but as you'll find out, that's a good thing.

Once you've got two windows in Photoshop, each containing about half of your album cover, don't fiddle with image color and contrast! You'll only make it harder to match up the two halves—you can finesse the colors later on.



YOU MAY NEED TO SWITCH your scanner software to its Advanced mode to turn off such options as Auto Adjustment.

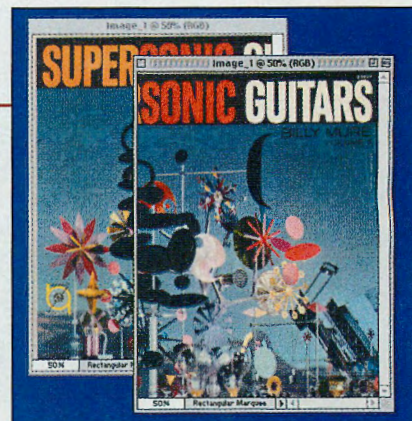


Tip

Halftones, the almost invisible dot pattern used for printing newspaper and magazine photos, can create an annoying moiré pattern (an artifact resembling dark and bright fringes) in a scan. Although some scanning software includes a descreening

filter, you shouldn't turn the filter on as soon as you see a moiré effect in your preview. This shrunken image often exhibits fringes even when the final product will come out fine. The only way to know for sure is to do the final scan and look at the result.

ONCE YOU'VE SCANNED in both halves, you're ready to start working!



2 Straighten the Images

Although it's sometimes hard to avoid getting tilted image scans, you must orient the images correctly to splice them together. Fortunately, Photoshop can straighten slightly rotated images with ease.

Start with either image and select the Measure tool. Drag a line along any perfectly horizontal edge on the album cover. While the main art on the cover (whether it's photos or illustrations) often lacks true horizontal lines, you can usually find a good edge somewhere in the text and logos.

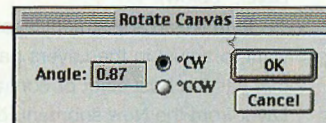
Next, select Arbitrary from the Rotate Canvas submenu of the Image menu. The number in the Rotate Canvas dialog box is the number of degrees by which your image is off the level. To straighten out your image, all you have to do is click OK, then save your changes. (To get rid of the Measure tool's line, just select any other tool.)

Repeat the process with the other scan to align both images properly.



IF YOU MAKE A MISTAKE while drawing the measure line, you can grab either end of it to make fine adjustments.

THANKS TO THE MEASURE TOOL, Photoshop knows exactly how far to rotate your image.



3 Combine the Two Images

Now you're ready to combine the two images in one file. First, though, you need to enlarge the canvas for either piece (let's arbitrarily choose the one on the right side) to make room for a 12-by-12-inch picture.

Select Canvas Size from the Image menu. Since you know the album cover is 12 inches wide, set the canvas width to that size. Click the middle-right option in the dialog box, which tells Photoshop to keep the original image against the right edge while making room for the left side of the album cover.

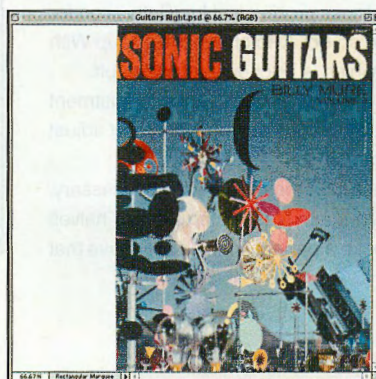
The rest is easy—just select the left image by pressing Command-A (this selects the whole thing—you want the overlap). Then copy the selection (Command-C), and paste it onto the right image (Command-V).

To slide the newly pasted half into place, select the move tool from the Tools palette and drag the image until it perfectly overlaps the right. Zoom in (Command-plus sign [+]) on the cover details while you make the final adjustments to align the two halves precisely. If you want to make extremely fine adjustments, you can nudge the image one pixel at a time by holding down Command while you press the arrow keys. When you think you've got perfect placement, check the entire seam.

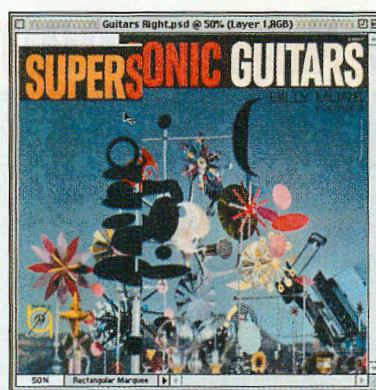
Although you fixed any alignment problems in the previous step, the four outer edges of the image probably won't match exactly—you've likely left more of the edges in one image, less in the other. You can use the crop tool to trim off the excess border, leaving crisp horizontal and vertical edges.

To select the crop tool, hold down the tool in the upper left corner of the toolbar, then select the rightmost tool in the pop-up menu that appears. Drag to select the region you want to keep, then choose Crop from the Image menu.

Whatever you do, resist the impulse to flatten the image! You'll need to keep the two layers separate for a while longer while you make further adjustments.



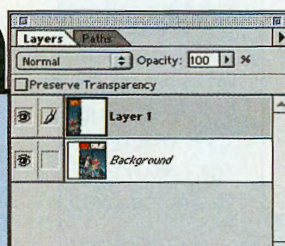
NOW THERE'S PLENTY OF ROOM for the rest of the album cover.



THE DRAG TOOL has its very own shortcut—a good thing, since you'll use it frequently. Just hold down the Command key and drag!

Tip

If you're moving the wrong layer, open the Layers palette, click the layer you want to move, and try again. Photoshop also provides useful shortcuts—when you select the move tool, Command-clicking selects the layer under your pointer, while Control-clicking lets you choose which layer to move.



THE LAYER PALETTE lets you keep track of all sorts of layer information.



THE CROP TOOL, found among the Marquee tools, can trim this ugly difference in edges.

4 Adjust Colors and Contrast to Match

Although you scanned both sides of your cover on the same scanner, you may find the colors or contrast don't match up very well.

To create a perfect match between the two sides, you can use standard Photoshop tools such as Levels, Brightness/Contrast, and Curves. Applying the changes directly to a layer can be a bit risky, though—you'd do better to use an adjustment layer (see "The Adjustment Layer," below).

To make an adjustment layer, first select the layer you want to adjust in the Layers palette (start with the layer that has the best color or contrast). Choose Adjustment Layer from the New submenu of the Layer menu.

In the New Adjustment Layer dialog box, select an adjustment tool appropriate for what you need to do—Levels for overall lightness problems, Hue/Saturation for color corrections, and so on. Also check the Group With Previous Layer box, which is unchecked by default.

Click OK, check the preview box in the Adjustment dialog box to see your changes as you work, and adjust until the two halves match.

Repeat the process with the other layer if necessary. Just remember that your aim is to match the two halves at this point, not to make a perfect final picture. Save that for later.

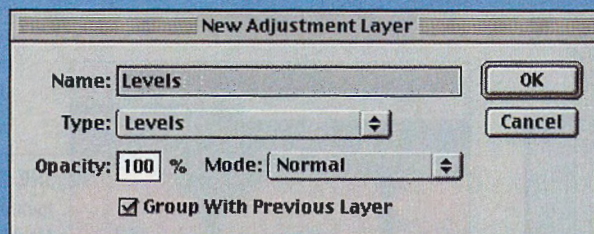


AGING SCANNERS SOMETIMES READ an image differently at the edges of the scan bed (we've exaggerated the effect in this example).

The Adjustment Layer

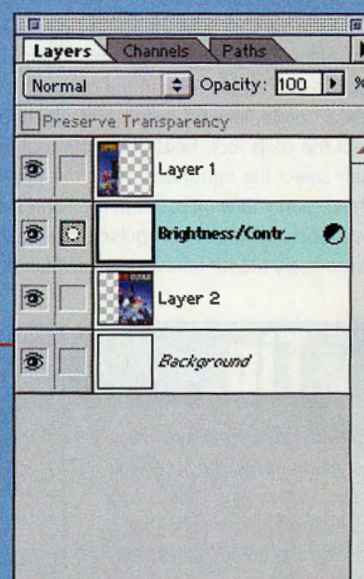
Why work with an adjustment layer rather than the original? Photoshop stores any changes to an adjustment layer separately from the original image, so no matter how many alterations you make, you leave the original layer completely untouched. You can turn off or delete the adjustment layer to remove the changes, or return to the adjustment layer at a later time and make more changes—this offers you great flexibility as you work on the image.

Adjustment layers are vastly preferable to relying on the History palette to undo undesirable changes—they're easier to work with, they don't disappear when you close the file, and they don't degrade image quality as multiple small adjustments do.



YOU CAN ACCESS MOST OF THE USUAL Adjustment tools as adjustment layers.

ONCE YOU HAVE IT IN PLACE, you can modify or remove the adjustment layer at will.



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5 Blending the Seam

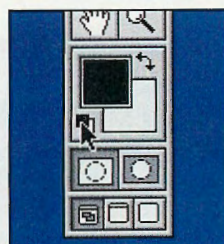
Layer adjustments alone don't always hide the seam where you joined the two images. If you run into this problem, you can use a layer mask to blend the seam. This is where having a big overlap between the images can come in handy.

Select the upper layer in the Layers palette, then create a layer mask by choosing Reveal All from the Add Layer Mask submenu of the Layer menu. This creates a mask that initially leaves the layer untouched.

Make sure you've set your foreground color to black (if you want to reverse part of the mask later, you can paint over it in white). Select the brush tool and choose a large brush—this will save time when you're masking a big area, and the brush's soft edge can disguise the seam. Now carefully paint across the interface between the images. The brush will reveal the underlying layer wherever you paint, exposing the other side's version of the same part of the cover.



WE'VE SLIGHTLY exaggerated the seam here to demonstrate a worst-case scenario.



CLICK THE PAIR OF LITTLE SQUARES in the Tools palette to set the foreground and background colors to black and white, respectively.



BY MAKING PORTIONS of the top layer transparent, you can blend the two layers almost invisibly.

Layer Masks

A layer mask is nothing more than an invisible overlay that tells an existing layer where to become transparent and where to remain visible and opaque. Typically, black areas of a layer mask render the underlying original layer transparent, white areas cause the layer to show, and all grays in between create degrees of transparency. Thus, you can use a layer mask to control the transparency of a layer by painting on the mask with black, white, or shades of gray.

The great thing about layer masks is that they never change the underlying layer. No matter how much fiddling around you do with the mask, you've preserved the original layer completely.

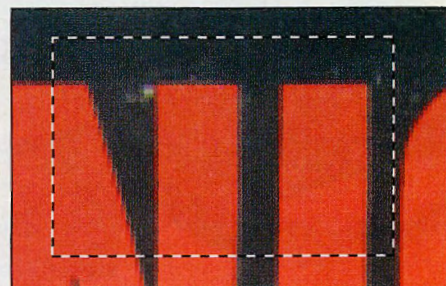
6 Final Tweaking

Once your image looks consistent all the way across, with no visible seams, you're ready for final tweaking.

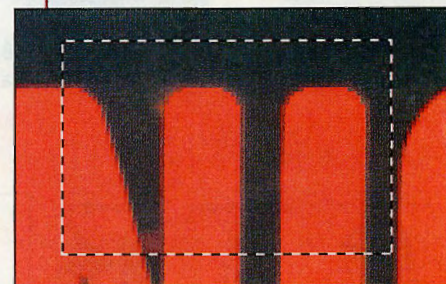
First save a copy (to preserve the original layers in case you need them), then flatten the image (select Flatten Image from the Layer menu). You'll be applying all adjustments from this point on to the image as a whole, ending up with a much smaller image.

Now apply all your usual tweaks for an impeccable final image.

- Clean up imperfections using the Dust And Scratches filter (hidden in the Noise filter). Take care, though—if you're not careful, you'll ruin the nice sharp edges of your picture (after all, to the filter they look a lot like scratches!). Touch up defects like tears or labels using the clone tool.
- Adjust colors using your favorite color tools, and tweak contrast using Levels or Curves (these tools offer much more flexibility than the Contrast And Brightness adjustment).
- Don't make changes to color mode and size until the last step. If you're posting the file to the Web, change the color mode to Indexed Color. Use the Image Size settings to give the file the exact dimensions you need.



PROCEED WITH CAUTION when using the Dust And Scratches filter—it can wreak havoc on any sharp edges in your image.



Tip

If you're handy with the gradient tool, you can create a black-to-white gradient over the seam on the Layer Mask to do the same thing in less time than it takes to run a brush over the same area.

Contributing Editor Joseph O. Holmes has been on the MacAddict masthead since issue number one. His goal is to outlast David Reynolds.

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Q *I recently switched to using Microsoft's Outlook Express as my email program. I noticed that the spelling check option is grayed out in the Tools menu while I create a new email document. How can I get Outlook Express to check my email messages?*

A Leave it to Microsoft to make a key feature in one of its programs dependent on having another of its programs. The answer to your question, of course, is that you need to install Microsoft Office 98 for Macintosh (<http://www.microsoft.com/macoffice>) to run a spelling check in Outlook Express (Microsoft's products use a unified spelling check engine). If you don't have and don't want to have Microsoft Office, you can use a free utility called SpellTools from Newer Technology (<http://www.newer-tech.com>). With SpellTools installed, you can check spelling and perform other functions (such as changing case or cleaning up unwanted gibberish type) in any application. You'll need an update, available at <http://www.marciniak.com/spelltools/spelltools.html>, to make SpellTools function under OS 9.

Q *My iMac randomly indexes its hard drive at odd times, usually right after I start up the computer. I always stop this indexing, as I do not understand what it is doing. Please tell me what's going on and how to make it stop!*

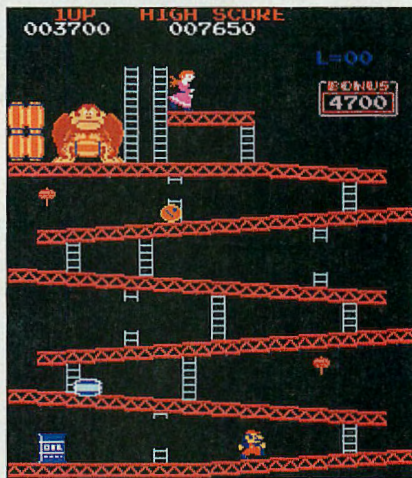
A Indexing is actually a function of Sherlock (version 2 in Mac OS 9 and up). Sherlock (<http://www.apple.com/sherlock>) is Apple's internal search tool, which you can access by typing Command-F or by selecting Find under the File menu while you are in the Finder. In addition to offering drive and Internet searches, Sherlock contains a powerful document searching option called Search By Content, which can look for text

inside a file. To carry out a content search, Sherlock first needs to scan and index every document on your computer—the content search is only as complete as your most recent indexing. Apple has set its newest computers to perform the indexing automatically, and your Mac is trying to complete the indexing when you start it up.

To turn off the indexing feature, launch Sherlock, select Index Volumes from the Find menu, and deselect the Use Schedule box. To change the indexing schedule, let your Mac complete the indexing once, then access Schedule from the Index Volumes dialog box. You can set the times and dates when you want Sherlock to index your drive.

Q *I overheard some of my PC geek friends talking about playing some old coin-operated video games like Asteroids and Centipede on their computers. I wanted to ask them if I could do this on my Mac but feared the answer would be no. Please tell me I can play old video games on my Mac!*

A Yes, absolutely! For years, an underground group of programmers has kept vintage video gaming alive via the MAME project. MAME stands for Multi-Arcade Machine Emulation—in short, a video game emulator. The MAME software is available for just about any computer platform, including the Mac. The Mac version, MacMAME, is available at <http://www.macmame.org>.



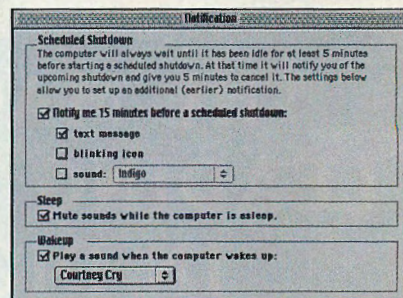
AHHH, PIZZA PARLOR video games can live again with MacMAME.

This software emulates the actual hardware of vintage video games. Remember, those old Pac-Man and Donkey Kong machines were really just computers with a TV and controllers in a big box. Emulating these arcade machines makes it possible to play the game on your computer—not a game similar to an old classic, but the actual coin-op version!

The only problem with MAME is that it uses ROM files (the games themselves), which you must hunt down on the Internet—the MacMAME download includes only the emulator. The legality of downloading ROM files from places such as <http://www.mame.dk> is questionable, since the files belong to someone or some company. Of course, many of these games long since fell out of production, and many of the companies that created them have vanished. As with the current MP3 debate, only time will tell. Relive your Pac-Man glory days at your own risk.

Q *I love my new iMac DV—except for one little annoyance. Whenever I wake it from sleep, it plays the same sound—Indigo. I want to change the wake-up sound, but I can't figure out how to do it.*

A This little bugaboo even stumped Yours Truly recently, but a little investigation uncovered the secret. The Energy Saver control panel controls your Mac's sleep and wake features. To change the wake-up sound, open this control panel and select Notification from the Preferences menu. This dialog box lets you select a new wake-up sound from any of the alerts installed in your System Folder. To add new ones, save a sound in System 7 Sound File format with a utility such as SoundApp, then drag it onto your closed System Folder.



SET IT AND FORGET IT. Change your computer's wake-up sound.

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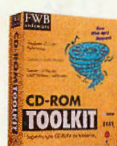
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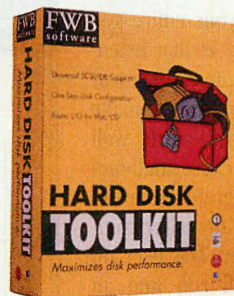
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Q Each time I turn on my computer, I see the flashing question mark on a folder for a few seconds, and then the computer boots up. What causes this? Is something wrong with my computer?

A The flashing question mark folder usually occurs when your computer can't find a disk with a valid, bootable System Folder on it. In your case, the computer is searching for a System Folder, and at first it doesn't find one. It continues searching, finds the System Folder on the hard disk, and starts up. If your computer stayed fixed on the flashing question mark folder, you would need to insert your System CD and investigate the hard drive for problems. Since your computer boots normally, most likely you have not assigned a startup disk in the Startup Disk control panel. Open the Startup Disk control panel and make sure you've selected the hard disk. If not, simply click it once to select it—your computer should start right up without further problems.

Q Recently I've had some problems with my computer. All of the forums where I posted my questions mentioned that I probably had an extension conflict and that I should use the Extensions Manager control panel to troubleshoot the issue. What does that mean and how can I do it?

A Needless to say, we get lots of questions from people with problems that arise from extension conflicts. Extension files are pieces of software that add functionality to your system—in effect they become part of your system. The little icons you see at the bottom of your screen during startup are extensions. Each one adds important software to your OS. The problem with extending your entire system's functionality in this way is that extensions load whether your Mac needs them or not—and since lots of different people make extensions, they don't always work well together. These conflicts can cause malfunctioning peripherals, odd program behavior, system freezes, and just about any other computer problem imaginable. Every Mac user, no matter how experienced, will run into an extension conflict at one time or another.

You have some simple tools at your disposal to determine if your problem stems from an extension conflict. One popular software utility called Conflict Catcher, from Casady & Greene (<http://www.casadyg.com>), analyzes your system to determine if you have an

extension conflict. This is a great utility, but because it is commercial, it costs money (about \$70).

Those looking to save a little cash can simply use the Extensions Manager, a similar utility Apple has included as part of the standard system software since System 7.5. Using this control panel, you can determine if one of your extensions is causing a problem. The secret to effective use of the Extensions Manager is to have a plan. First use the Extensions Manager to save your current set. This set is usually called My Settings, but you might want to change the name via the Rename Set menu choice from the File menu (you might find it helpful to name the current set by date so you know how long you have been using it).

Second, use the set's pop-up menu and choose the System Base set, automatically named for whatever version of the Mac OS you have installed. Restart and see if the problem still occurs. If everything runs smoothly, you know that one of your extensions is the culprit. Sometimes—for example, when you're dealing with a scanner or printer error—you have to enable some nonsystem extensions to test for the problem. If this is the case, duplicate the Base Set and enable only those extensions you need. Keep enabling extensions and restarting until the problem recurs.

If you find a problem extension, make sure you have the most current version—often the company that makes the extension discovers the problem and offers an update or patch. You might also invest in a wonderful program called Extension Overload (<http://www.extensionoverload.com>), which tells you which extensions you have and what they do.

Q I love Outlook Express, but I can't get it to import my information from Netscape. I know this is supposed to work, but until I can import my Netscape data, I cannot use Outlook. What am I doing wrong?

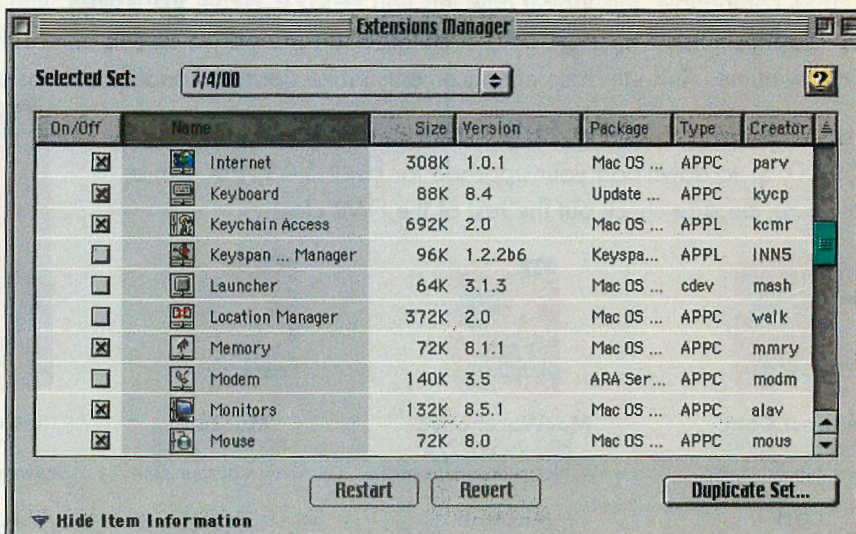
A Due to the way Microsoft implemented its import function and the way Netscape makes its information available, you'll need to employ a tricky little workaround to get Netscape and Outlook Express to jive together.

The technique is simple—just make sure you have Netscape running when you import information into Outlook Express. With Netscape running, Outlook Express can find and import your address book, email messages, and other information. You should only need to do this once.

Bookmark Bonus

In the June 2000 issue, we mentioned how to use the same Bookmarks and/or Favorites in both Netscape and Internet Explorer. We failed to mention a wonderful little utility called Bookit that does this for you. It allows you to create and update all your links between different browsers. Check it out at <http://www2.iastate.edu/~cosy/bookit/bookit.html>.

Buz Zoller urges you not to mess with Texas.



THIS CONTROL PANEL can save hours of aggravation as you try to figure out why your Mac is misbehaving.

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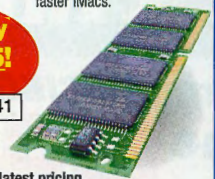
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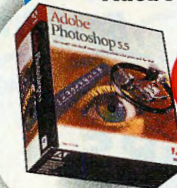


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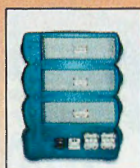


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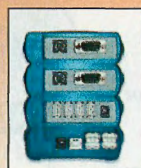
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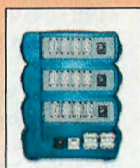
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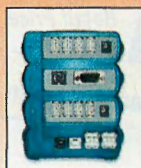
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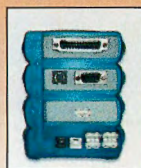
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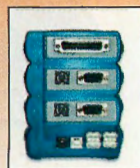
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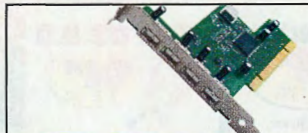
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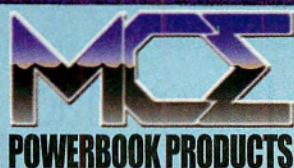
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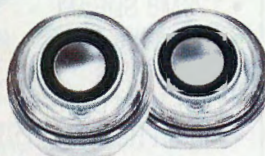
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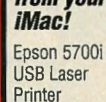
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Ruby DV	400MHz	10.0GB	64MB	CD	2 ports	2 ports	Yes	Yes	#124914	\$994.98	-
Indigo DV+	450MHz	20.0GB	64MB	DVD	2 ports	2 ports	Yes	Yes	#124915	\$1294.98	\$46
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Sage DV+	450MHz	20.0GB	64MB	DVD	2 ports	2 ports	Yes	Yes	#124917	\$1294.98	\$46
Graphite DV SE	500MHz	30.0GB	128MB	DVD	2 ports	2 ports	Yes	Yes	#124918	\$1494.98	\$53
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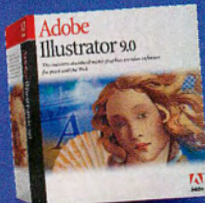
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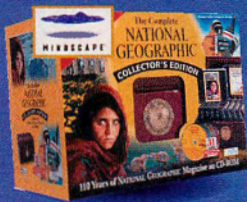
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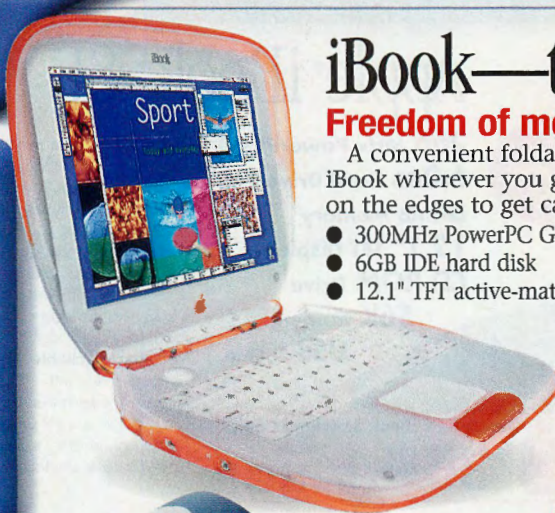
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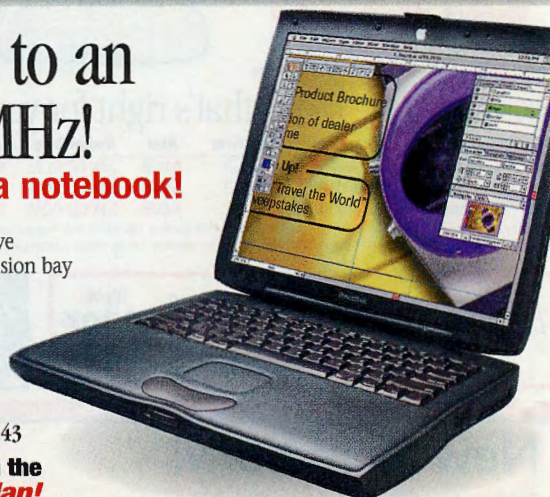
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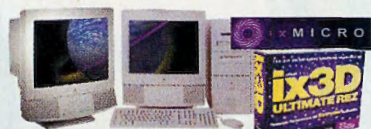


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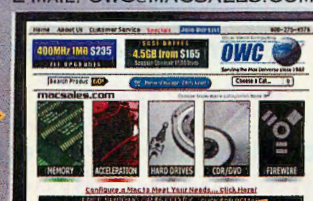


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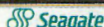
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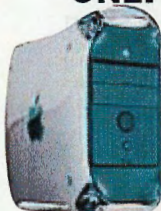
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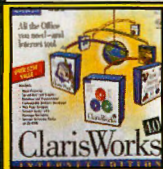
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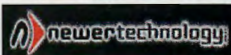
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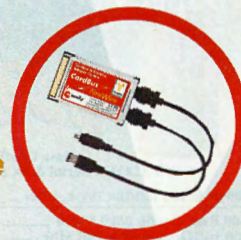


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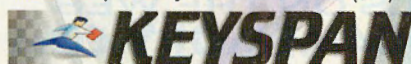
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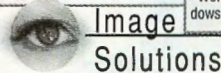
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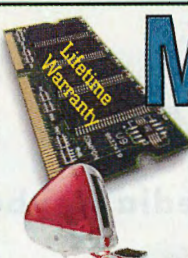
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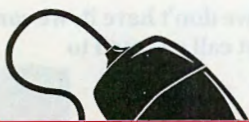
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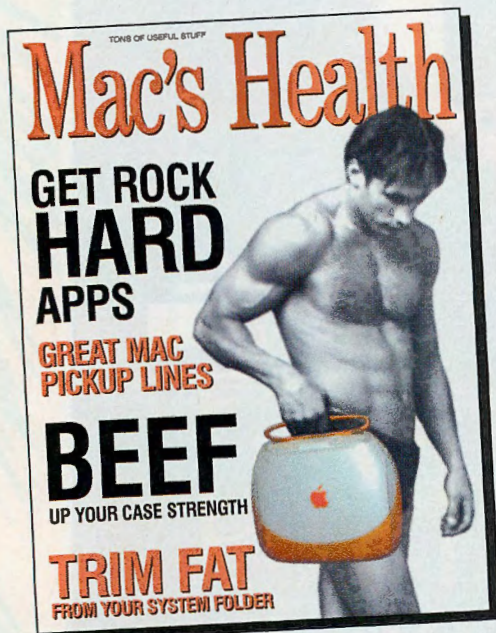


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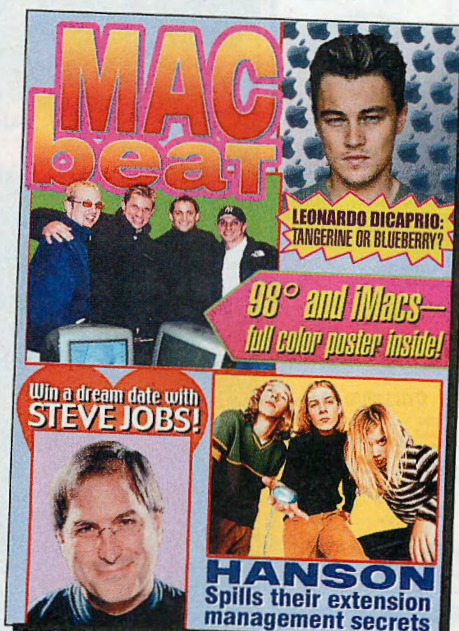
OK, OK...we'll get some professional help.

Rejected Redesign Covers

Here are some of the *MacAddict* covers we rejected during our redesign process—for obvious reasons.



ALTHOUGH SOME OF US liked the concept, research indicates that we have well over 17 female readers.



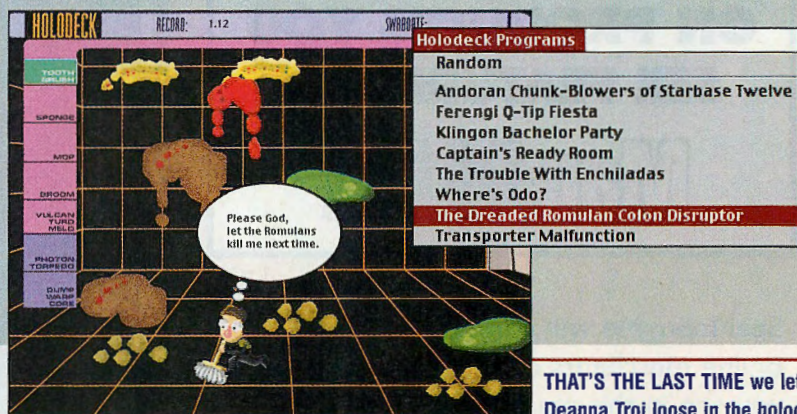
ISN'T LEO a dreamboat? Sigh.



WE TOOK ONE LOOK at Ian's desk and realized we're not the right people for this magazine.

So That's What Life in Starfleet Would Really Be Like

The next time you're marveling at an episode of *Star Trek* and wishing you could leave your meaningless existence to swoop around the galaxy, take a few minutes and play Freeverse Software's *HoloDeck Swabbie* (<http://www.freeverse.com/toys/index.html>). This simulation game puts you in the holodeck (after a particularly messy episode) with a selection of cleaning tools and a flagging will to live.

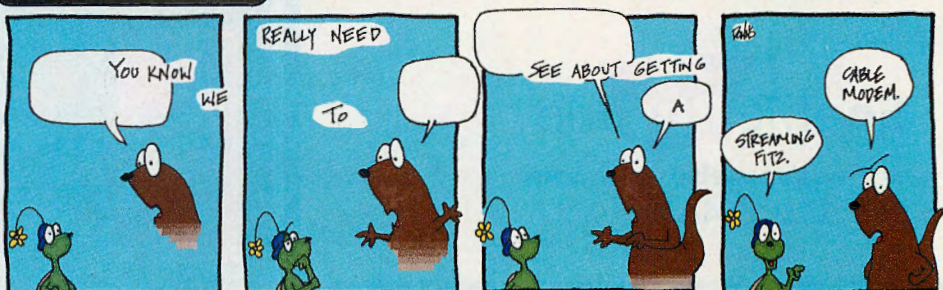


THAT'S THE LAST TIME we let Deanna Troi loose in the holodeck!

TOP 5 Reasons Internet Appliances Will BOMB

- 5 Toasters that post rambling Usenet screeds will scare the bejeezus out of consumers.
- 4 Do you really want your refrigerator making its contents public?
- 3 Frequent dryer operating system crashes will become the leading source of house fires.
- 2 Vacuum Web browsers will really suck.
- 1 Blenders will leak recipe secrets to Martha Stewart, ensuring her world domination.

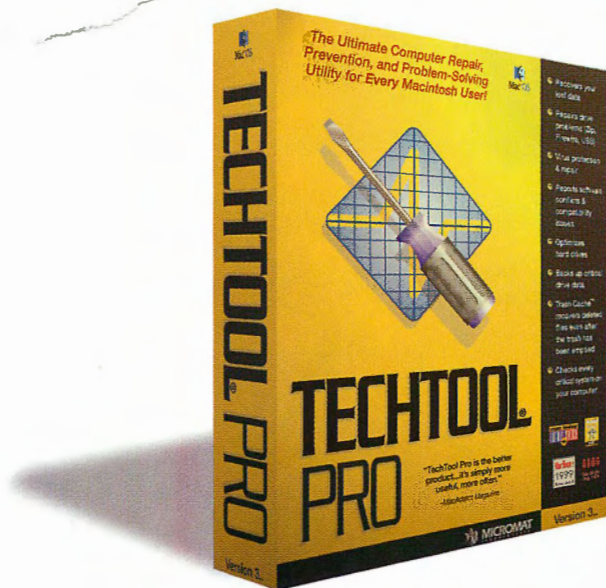
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BY CHUCK DOWNS

One Box. Fix All.



Micromat's disk repair and Macintosh troubleshooting utility just became a whole lot better. Besides repairing drives, recovering data and checking the health of your Macintosh components, TechTool Pro 3 can now help protect you against virus problems and software conflicts. Version 3 also sports a new modern interface. But the real power of TechTool Pro 3 isn't in the features you can see, it's in the features you can't see. Like a

multitude of new drive repair routines that can save data that other utilities would simply abandon. An improved recovery system that will find lost files in the darkest caverns of a damaged drive. You'll also find improved performance on key features like disk optimization. Simply put, TechTool Pro 3 is the most complete and powerful troubleshooting utility available for your computer. Why settle for anything less?



MacWorld
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